



Configuring an IBM Forms 8.0 Cluster using WebSphere Application Server v8.0.0.4

Preface

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This guide describes a comprehensive procedure for installing, configuring, and building an IBM® Forms v8.0 cluster using:

- IBM WebSphere Application Server 8.0.0.4 – 32-bit
- Windows® 2003 Server
- IBM HTTP Server 8.0.0.4

This guide is specifically written for 32-bit IBM Forms v8.0 and WAS v8.0.0.4, the same approach will apply to any IBM Forms v8.x 64-bit version and any WAS v8.0.x 64-bit version.

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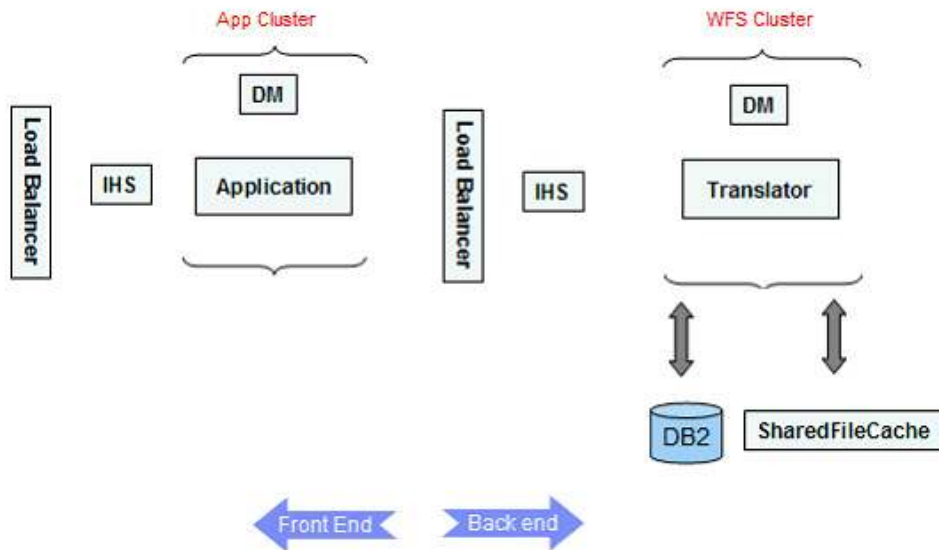
Introduction

There are different ways you can set up your cluster environment to run Webform Server, but most likely it will depend on the business needs. In a typical production environment, the topology is divided in two large sections: Front End and Back End.

Front End refers to the segment in the topology where your Application lives plus all the essentials that are needed to have this section of the topology up and running like IBM HTTP Server (IHS), Load Balancer, Deployment Manager if a cluster environment exists for this part of the topology, etc.

Back End refers to the section where the Webform Server lives plus all the additional components needed to have this section of the topology up and running, like IBM HTTP Server, Load Balancer, Deployment Manager, Log Server, SharedFileCache, database, etc.

A typical production environment could be set up as shown in the next diagram:



Before you begin

Prior to installing the Webform Server Translator to a managed node there are preparation steps that need to be completed. This guide assumes the use of WebSphere Application Server Deployment Manager 8.0.0.4 IBM HTTP Server 8.0.0.4, DB2 v9.7 and IBM Forms Server 8.0.

Part Numbers

CZM90ML - IBM Installation Manager for Windows x86

CZM9KML - IBM WebSphere Application Server Network Deployment V8.0 (1 of 4)

CZM9LML - IBM WebSphere Application Server Network Deployment V8.0 (2 of 4)

CZM9MML - IBM WebSphere Application Server Network Deployment V8.0 (3 of 4)

CZVG4ML - IBM WebSphere Application Server Network Deployment V8.0 (4 of 4)

The following four parts make up the image for IBM WebSphere Application Server v8.0 Supplements Multiplatform Multilingual and also contains IBM HTTP Server v8.0 and Plug-ins v8.0

CZM91ML.zip

CZM94ML.zip

CZM95ML.zip

CZXR9ML.zip

8.0.0.4: WebSphere Application Server v8.0 Fix Pack 4 found at the following link.

<http://www-01.ibm.com/support/docview.wss?uid=swg24033190>

Including:

- 8.0.0-WAS-WAS-FP000004-part1.zip
- 8.0.0-WAS-WAS-FP000004-part2.zip
- 8.0.0-WS-WASSupplements-FP000004-part1.zip
- 8.0.0-WS-WASSupplements-FP000004-part2.zip
- 8.0.0-WS-WCT-FP000004.zip

Items not covered

- Installing the IBM Installation Manager (CZM90ML for Windows x86)
- Installing DB2
- Configuring the cluster with WebSphere Process Server
- Creating multiple clusters in a single cell

WIKI Information Center:

<http://www-10.lotus.com/ldd/lfwiki.nsf>

****NOTE:** To perform the tasks described in this document, you need basic IBM Forms Server and WebSphere Application Server knowledge and administration skills.

Install Manager Defining Repositories

This document assumes that you have the IBM Installation Manager installed.

1. Unzip the four part numbers for IBM WebSphere Deployment Manager (CZM9KML, CZM9LML, CZM9MML, CZVG4ML) into one directory.
For example: <Media Root>\WAS\
 2. Unzip the four part number for IBM HttpServer (CZM91ML, CZM94ML, CZM95ML, CZXR9ML) into one directory.
For example: <Media Root>\IHS
 3. Unzip the Fixpack 8.0.0.4 fixes (8.0.0-WS-WAS-FP0000004-part1.zip, 8.0.0-WS-WAS-FP0000004-part2.zip, 8.0.0-WS-WASSupplements-FP0000004-part1.zip, 8.0.0-WS-WASSupplements-FP0000004-part2.zip, 8.0.0-WS-WCT-FP0000004.zip) into three directories.
For example: <Media Root>\8.0.0-WS-WAS-FP0000004
<Media Root>\8.0.0-WS-WASSupplements-FP0000004
<Media Root>\8.0.0-WS-WCT-FP0000004

NOTE: The CD numbers may vary between operating systems. The CD title is WebSphere Application Server Network Deployment for Windows X86.

4. Open the Installation Manager and navigate to *File > Preferences > Repositories*
5. Add the repositories for the IBM Websphere Deployment Manager, IBM Http Server, and the IHS Plug-ins for example:

```
<Media Root>\WAS\ repository.config  
<Media Root>\IHS\repository.config  
<Media Root>\8.0.0-WS-WAS-FP0000004\ repository.config  
<Media Root>\8.0.0-WS-WASSupplements-FP0000004\ repository.config  
<Media Root>\8.0.0-WS-WCT-FP0000004\ repository.config
```

6. Click OK and save your changes

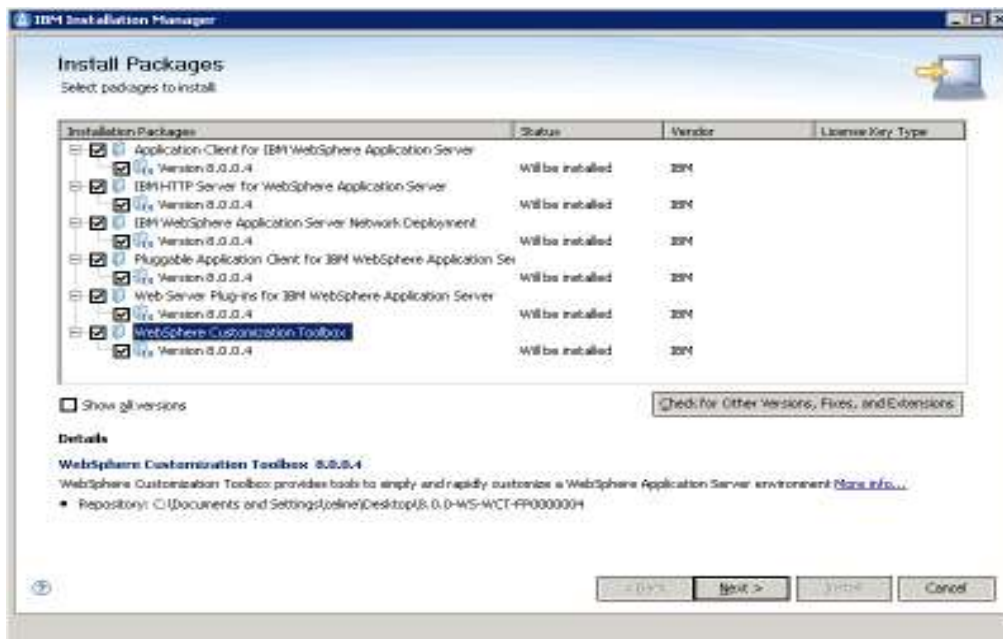
NOTE: The CD numbers may vary between operating systems. The CD title is WebSphere Application Server Network Deployment for Windows X86.

Installing WebSphere Application Server Deployment Manager, IBM HTTP Server, and 8.0.0.4 updates

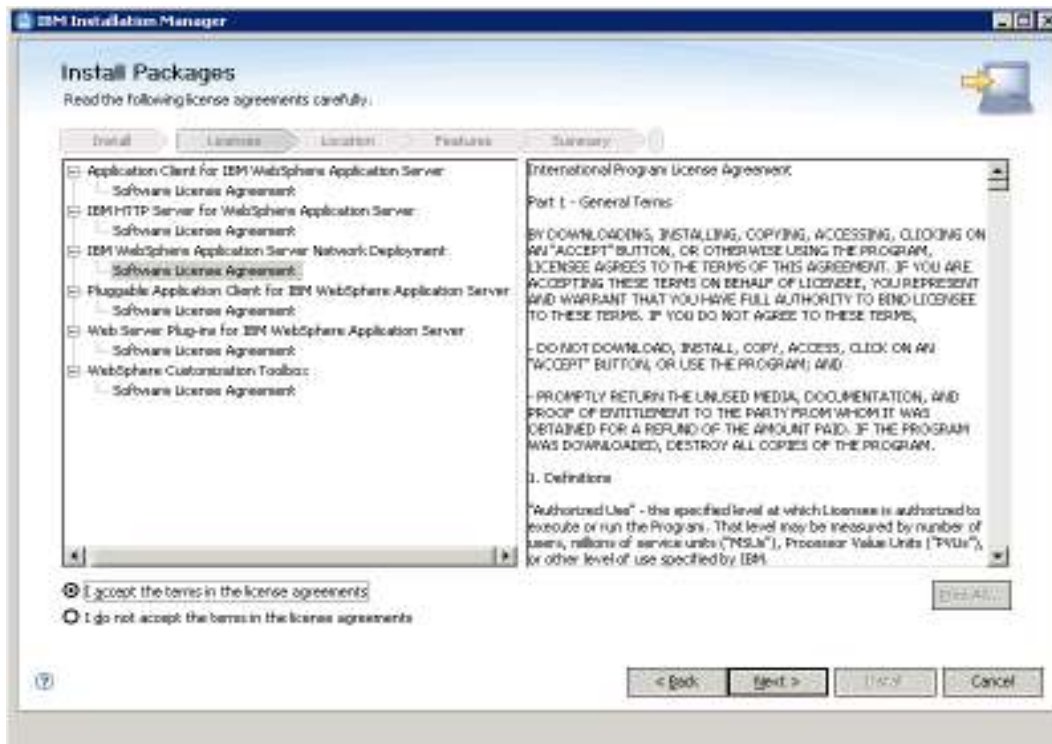
1. Open the IBM Installation Manager *Start > All Programs > IBM Installation Manager > IBM Installation Manager*. Once the dialog appears click **Install**.



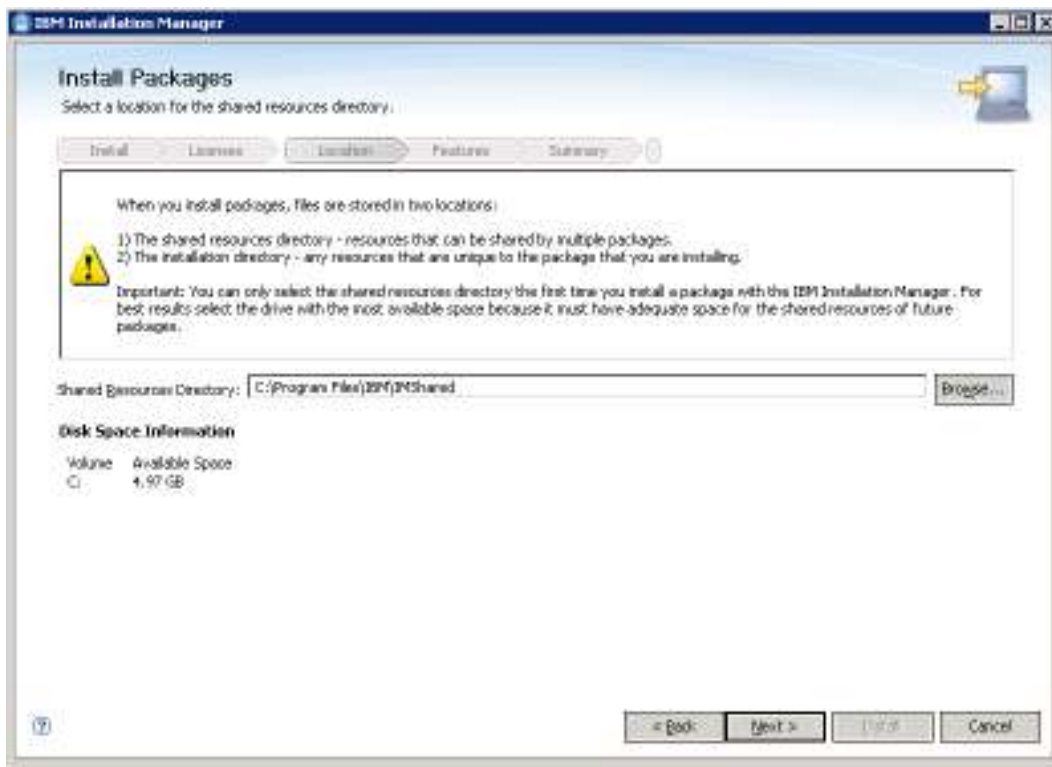
2. Select all packages for installation; Application Client for IBM WebSphere Application Server, IBM HTTP Server for WebSphere Application Server, IBM WebSphere Application Network Deployment, Pluggable Application Client for IBM WebSphere Application Server, Web Server Plug-ins for IBM WebSphere Application Server, WebSphere Customization Toolbox.



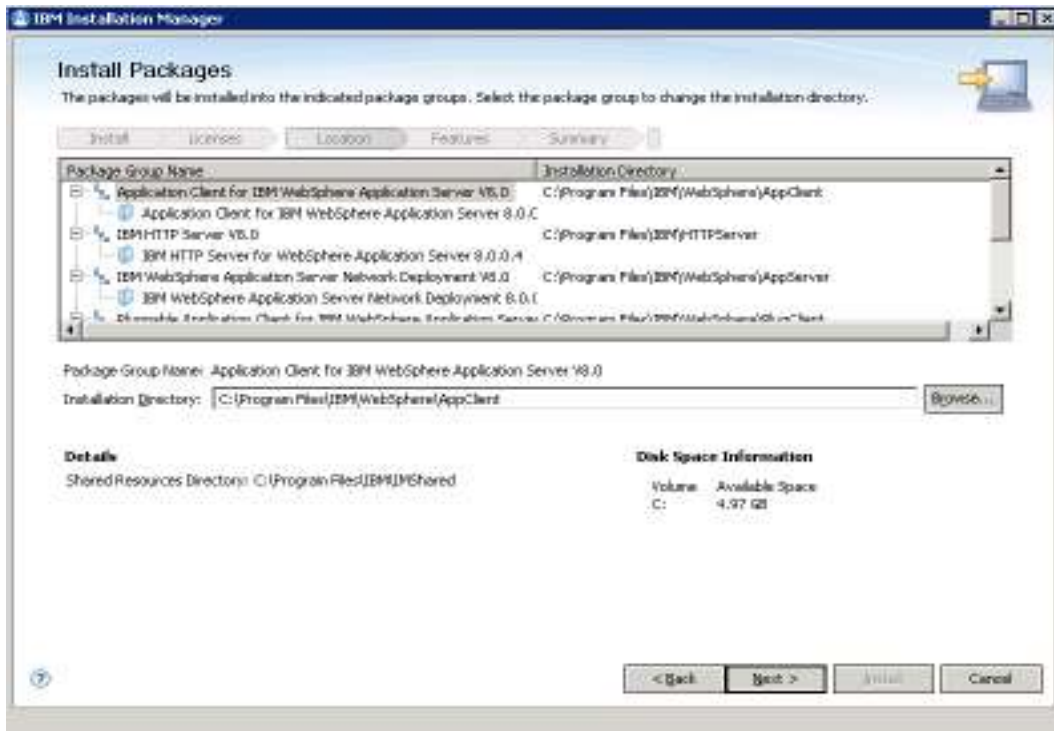
3. Accept the licensing agreement and click **Next**.



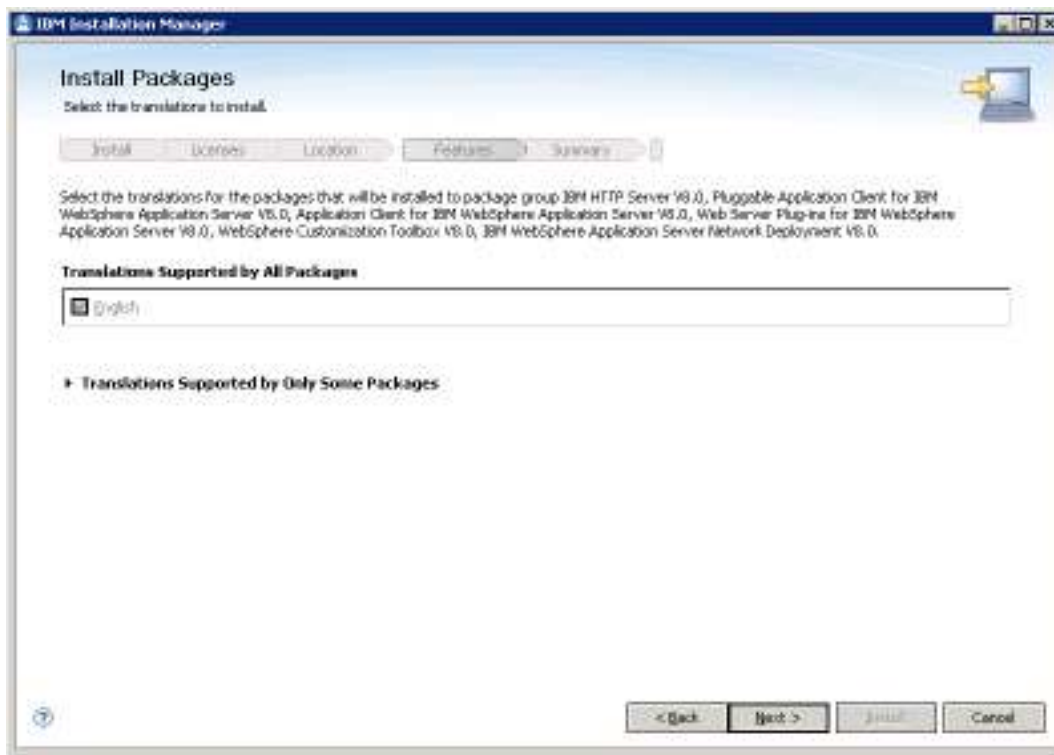
4. Select the install location for the shared resources directory. Here we kept the default location. Click **Next**.



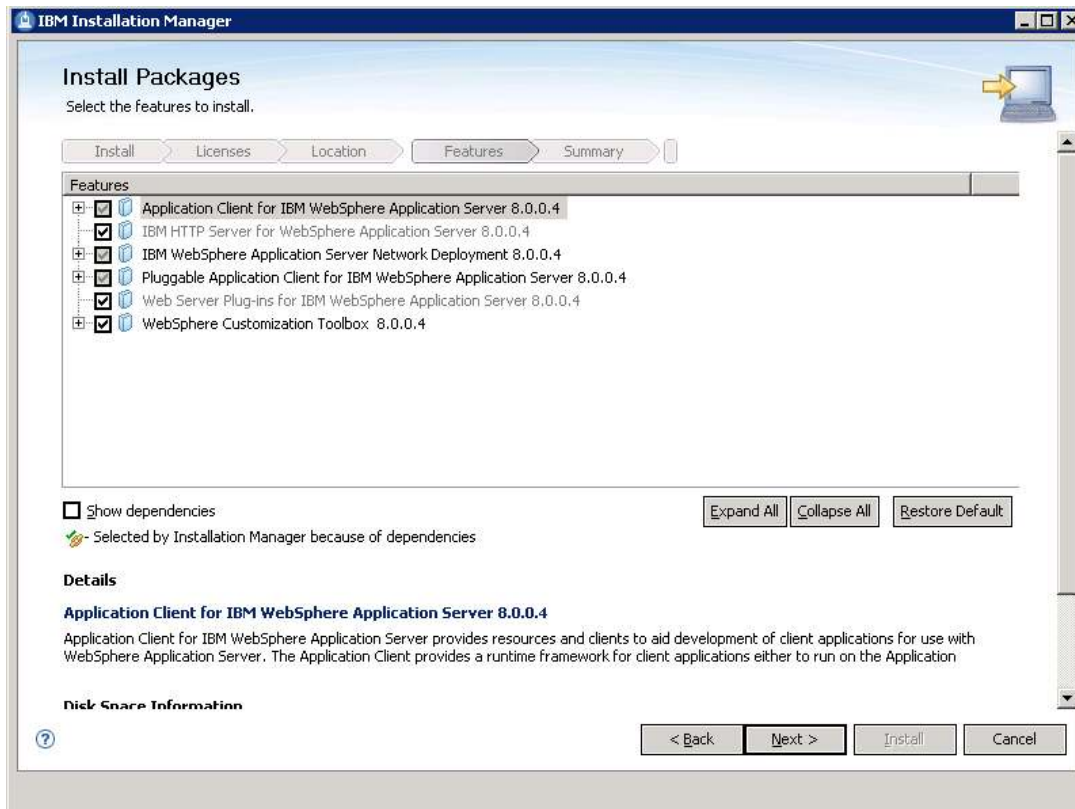
5. Define the installation directory for the WebSphere Application Client for WebSphere Application Server. Here we left the default location. Click **Next**.



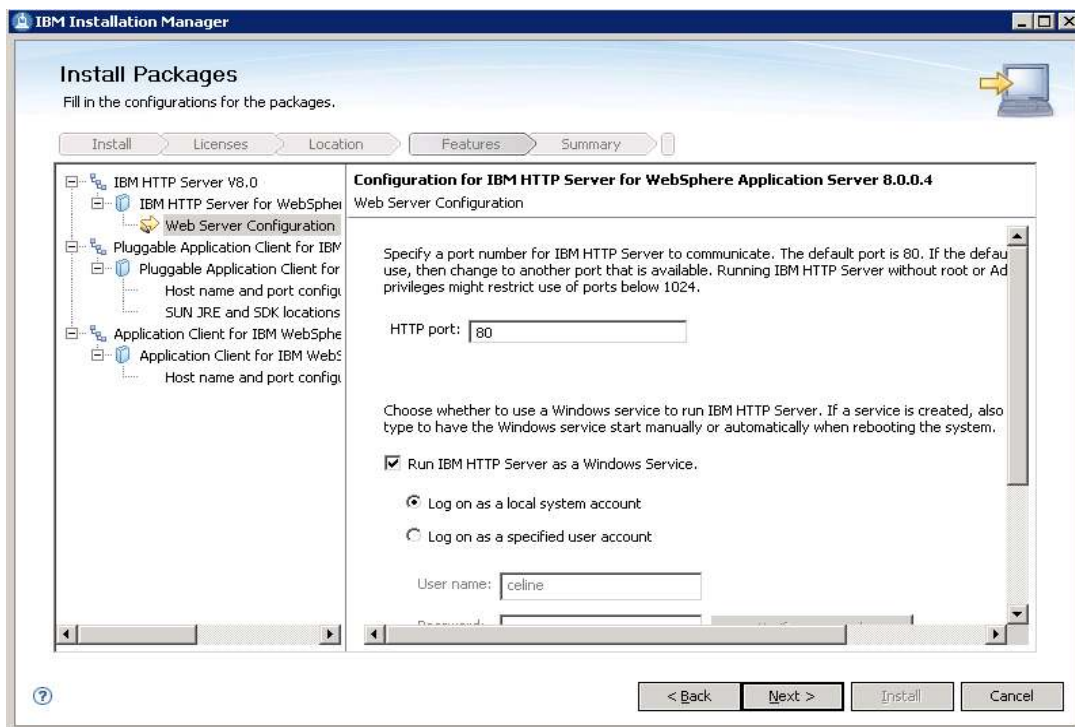
6. Select the language and click **Next**.



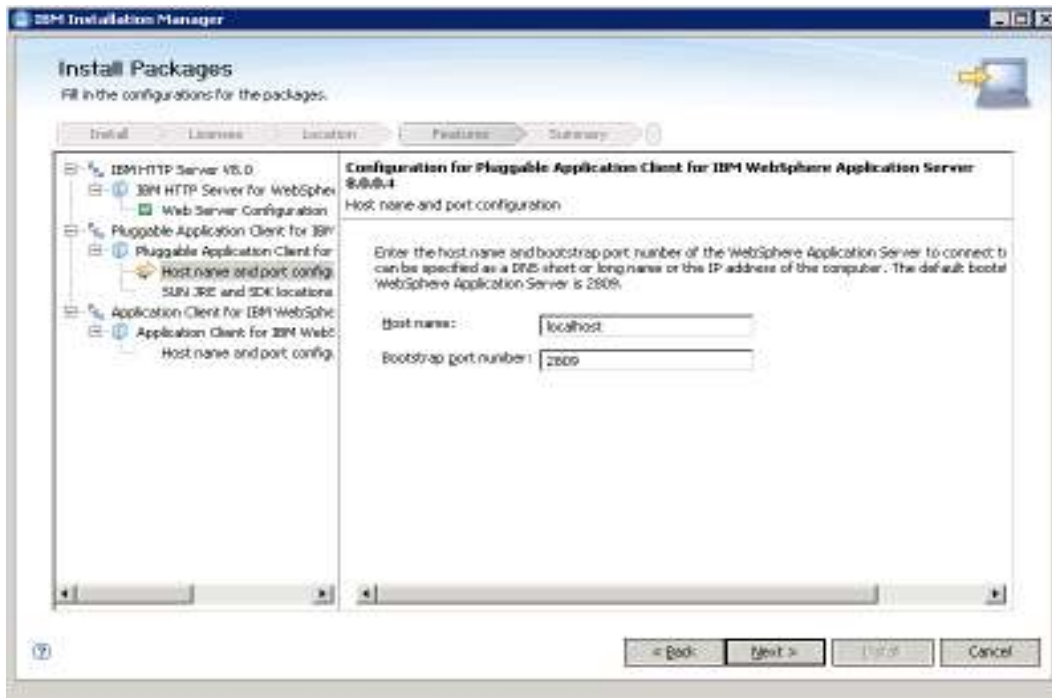
7. Select the features to install. Here you see the default screen. Click **Next**.



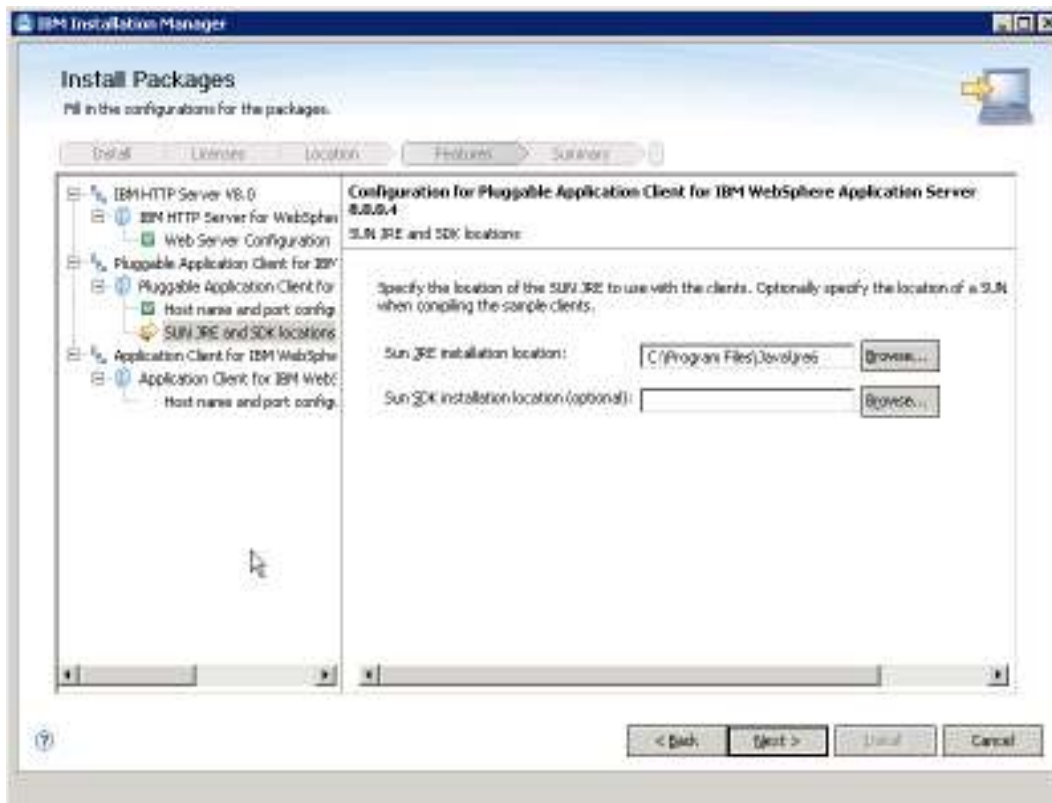
8. Define the configurations for the packages. Here we left the defaults; however, for a production environment you will need to define the host name and port configuration.



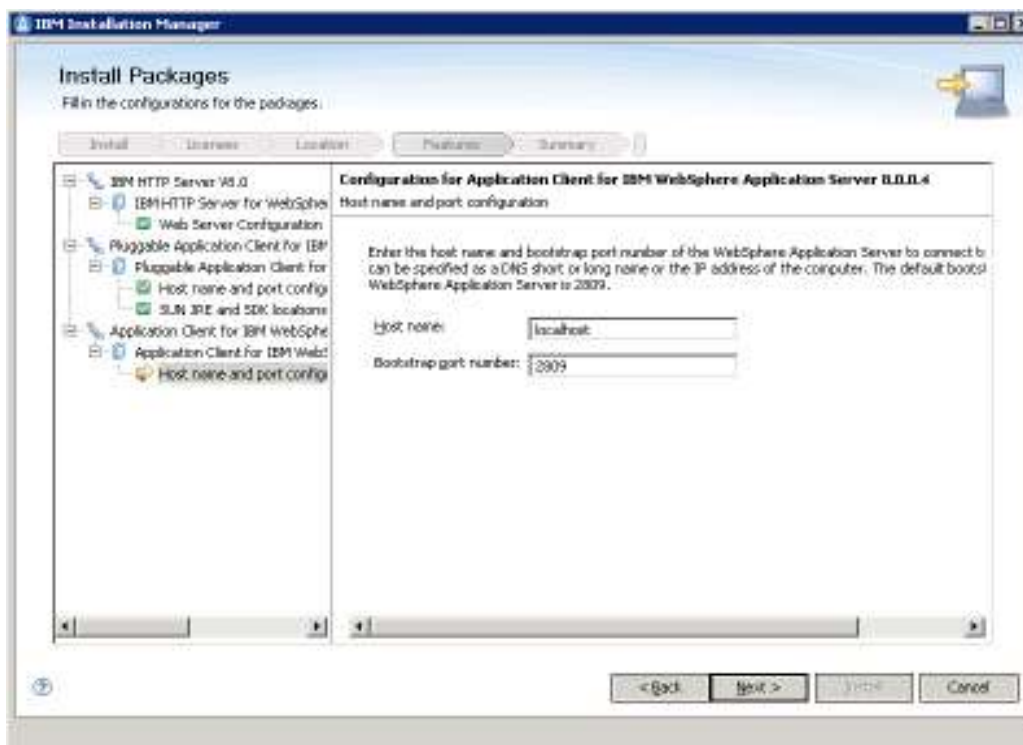
9. Define the host name and bootstrap port number. In this screen, we are leaving the defaults. You will want to define the host name of your server. Click **Next**.



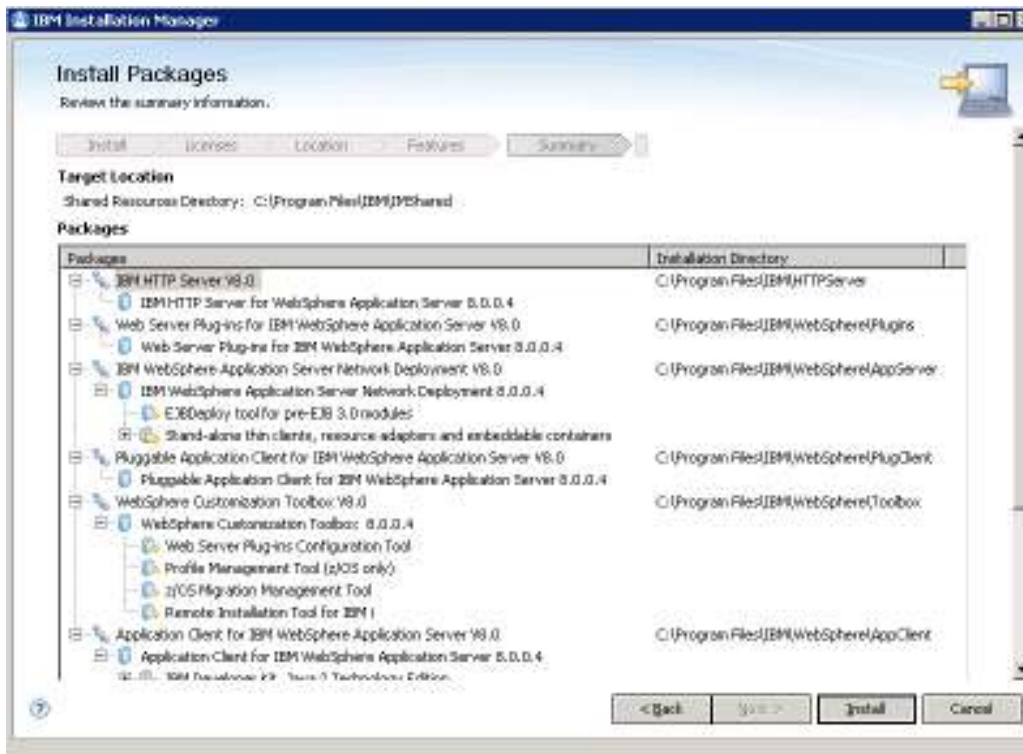
10. Define the location of Sun Java Runtime Environment. The installation requires a minimum of JRE 1.6. Click **Next**.



11. Fill in the configurations for the packages for the Application Client. For this installation we selected the defaults; however, for a production server you will want to define the host name and bootstrap port number for your server.



12. Review the install summary and click **Install**.

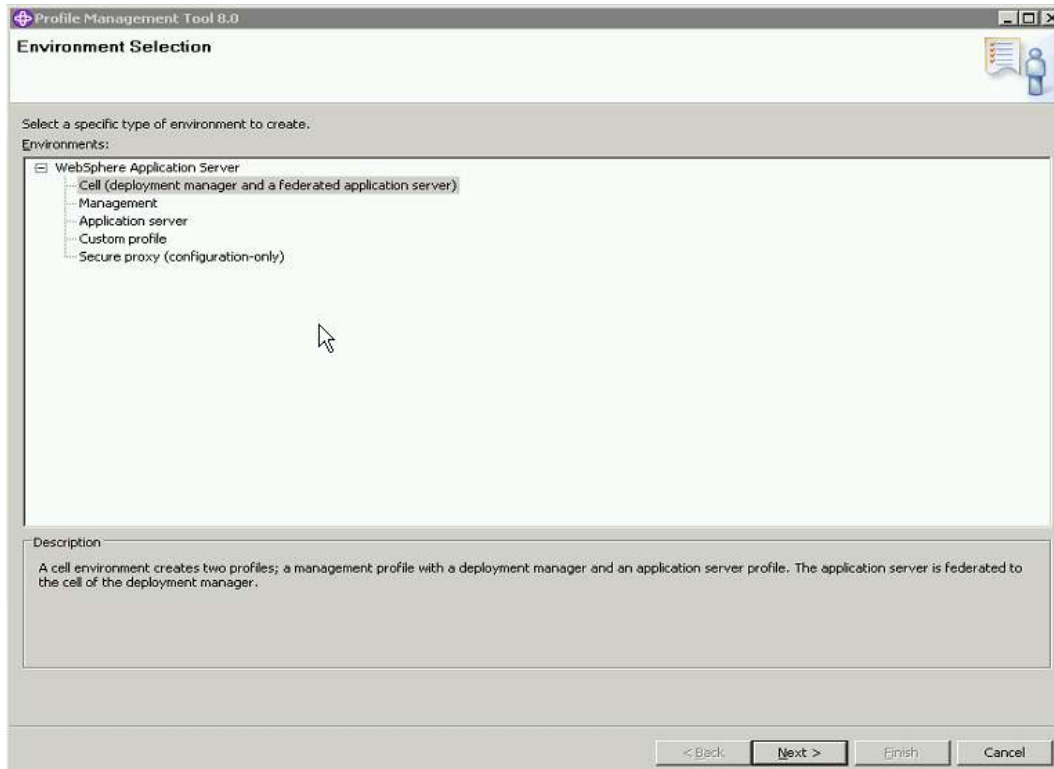


-
- IBM Installation Center
- ## Install Packages
- The packages are installed with warnings. [View Log File](#)
- Configuration errors were detected during the installation. You should view the log file(s) under C:\Program Files\IBM\HTTPServer\logs\postinstall directory to investigate the severity of the errors.
- The following packages were installed:
- ☐ Application Client for IBM WebSphere Application Server
 - ☐ Application Client for IBM WebSphere Application Server V8.0
 - ☐ IBM HTTP Server for WebSphere Application Server
 - ☐ IBM WebSphere Application Server Network Deployment
 - ☐ IBM WebSphere Application Server Network Deployment
 - ☐ Pluggable Application Client for IBM WebSphere Application Server
 - ☐ Pluggable Application Client for IBM WebSphere Application Server
 - ☐ Web Server Plug-ins for IBM WebSphere Application Server
 - ☐ Web Server Plug-ins for IBM WebSphere Application Server
 - ☐ WebSphere Customization Toolbox V8.0
 - ☐ WebSphere Customization Toolbox 8.0.0.4
- Which program do you want to start?
- ☒ Profile Management Tool to create a profile.
 - ☐ Profile Management Tool to create an application server profile
 - ☐ WebSphere Customization Toolbox
 - ☐ None
- Finish

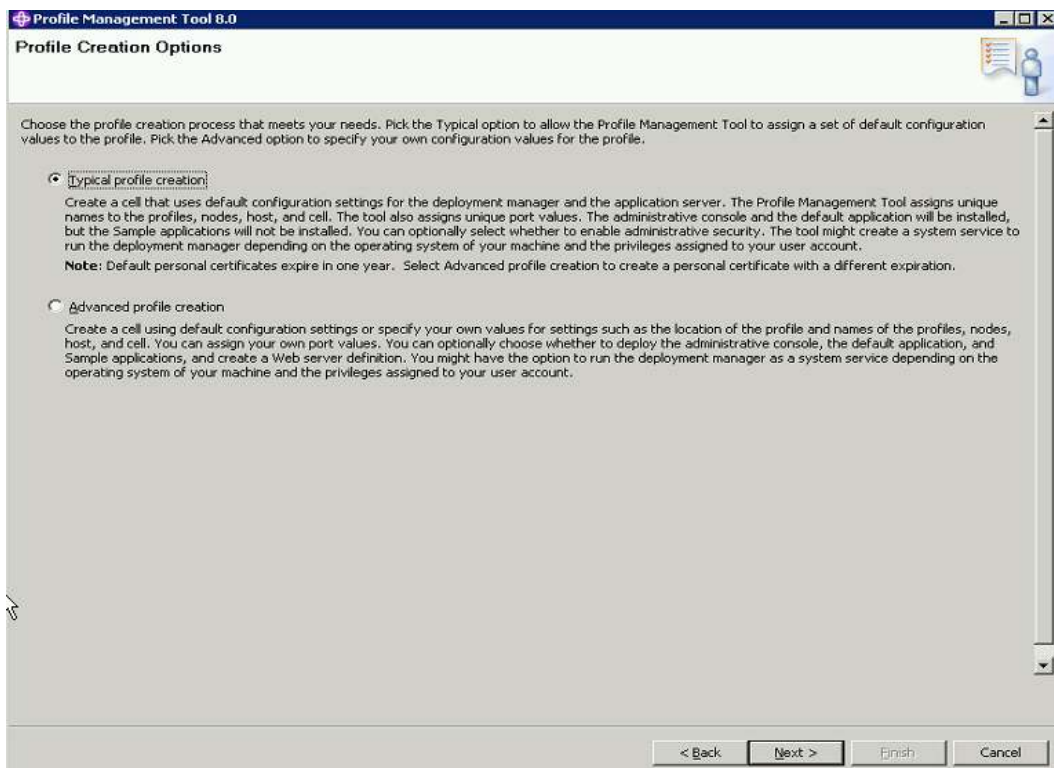
1. From the WebSphere Customization Tool box click **Create**.



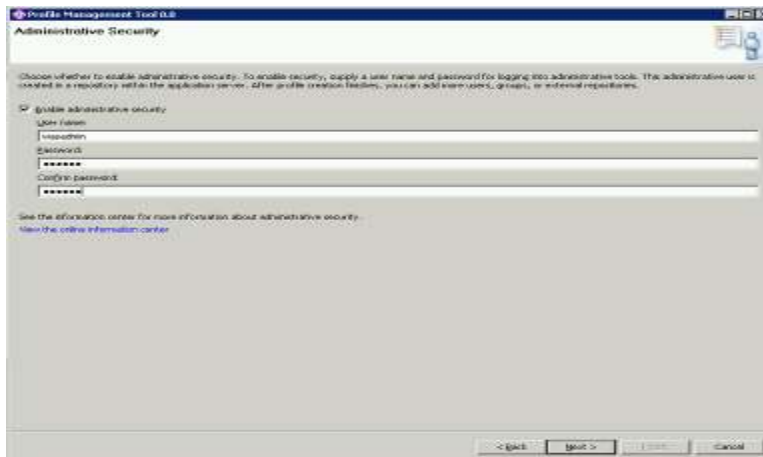
2. Highlight Cell (deployment manager and a federated application server) and click **Next**.



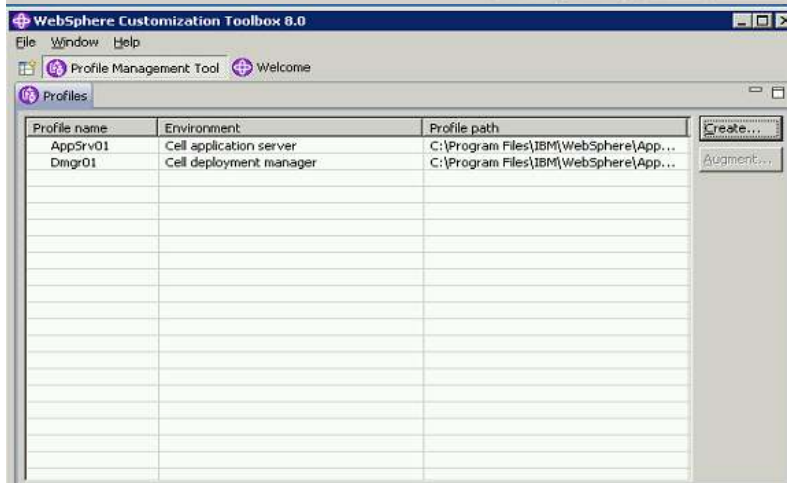
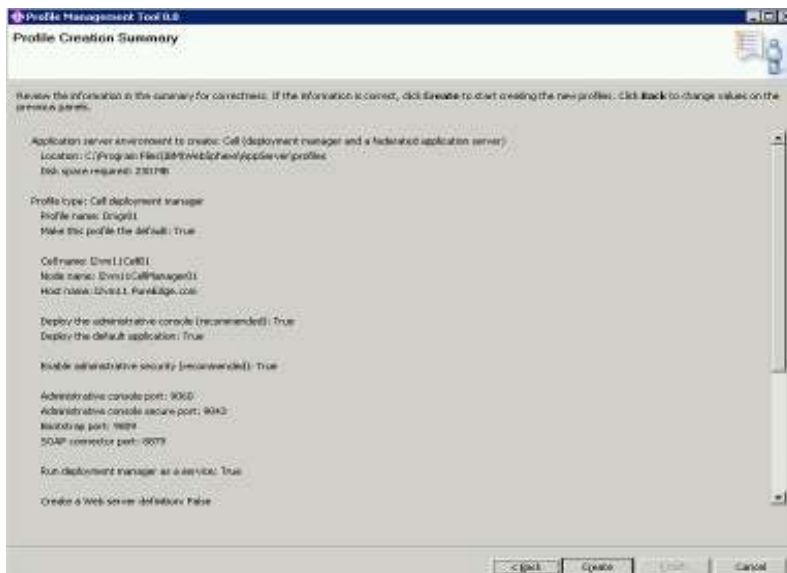
3. Select "Typical profile creation" and click **Next**.



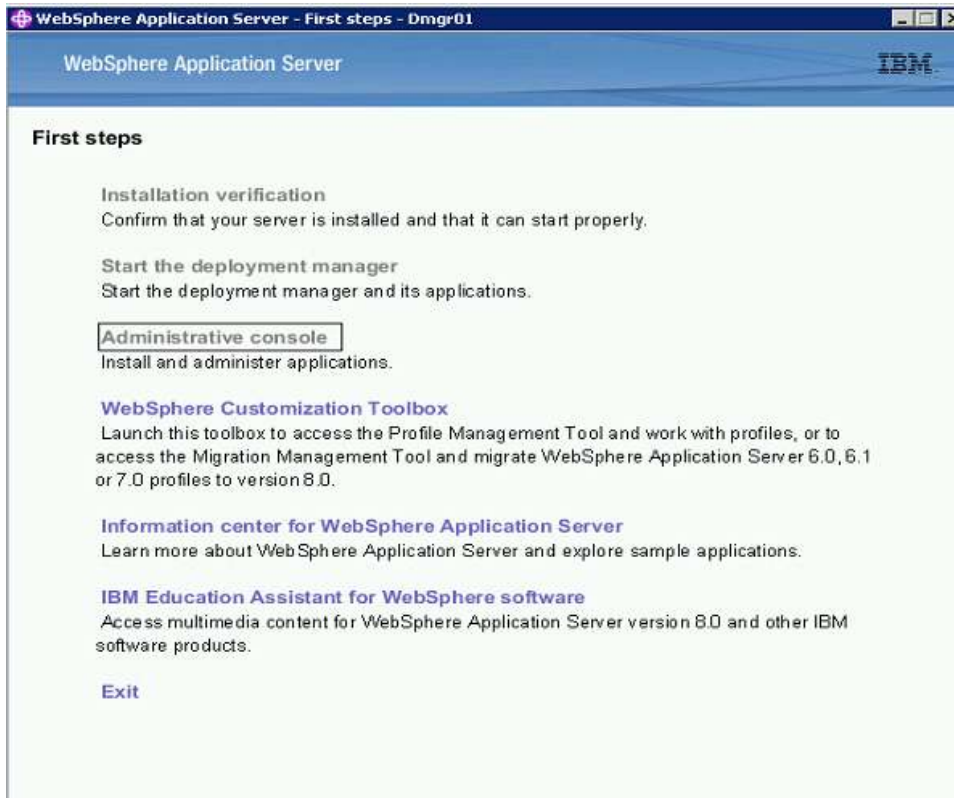
4. Add the username and password for the administrative security and click **Next**.



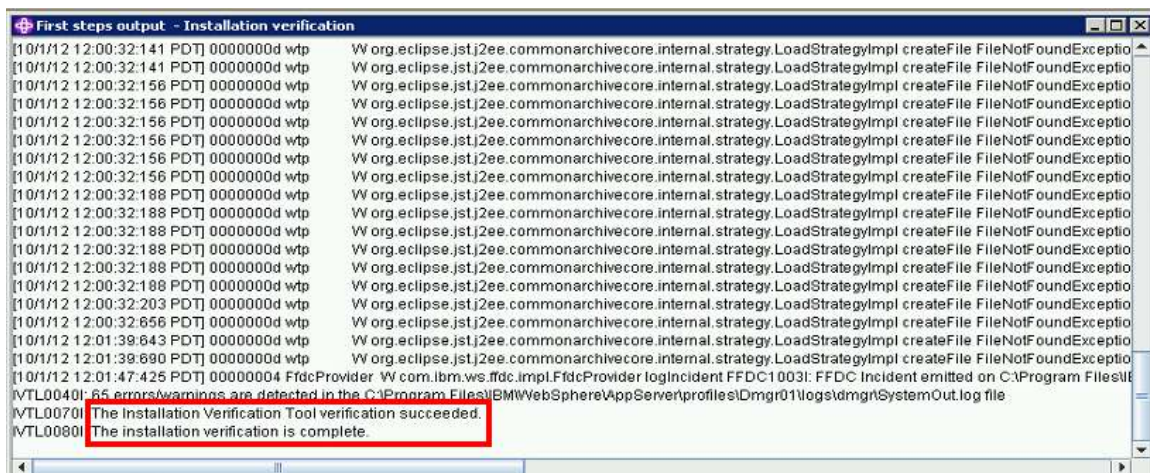
5. Review the profile creation summary and click **Create**.



- When the profile creation completes click the “*Launch the First steps console*” and click **Finish**.

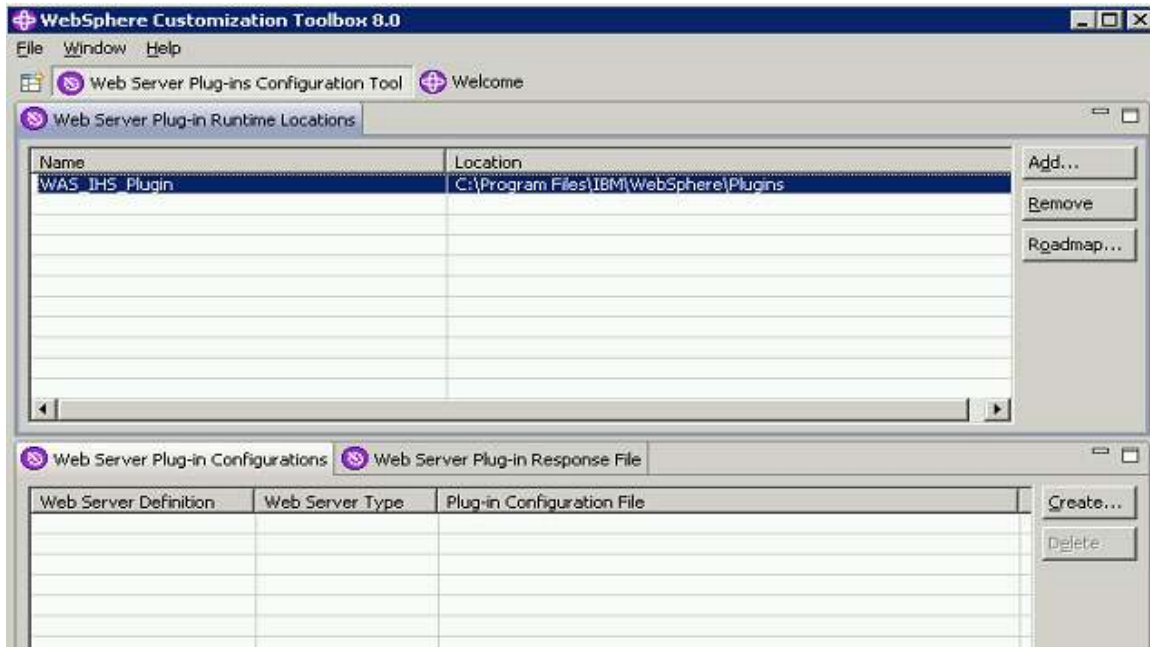


7. To ensure the installation was successful you should see the confirmation on the command line generated.

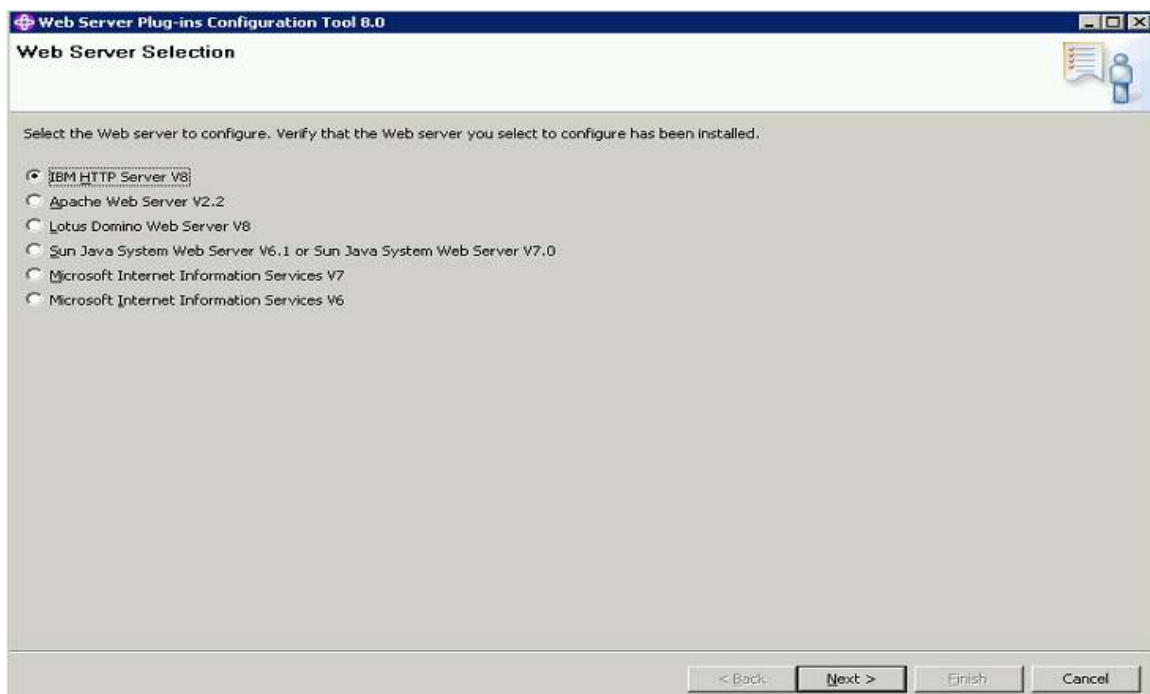


Configuring the Web Server

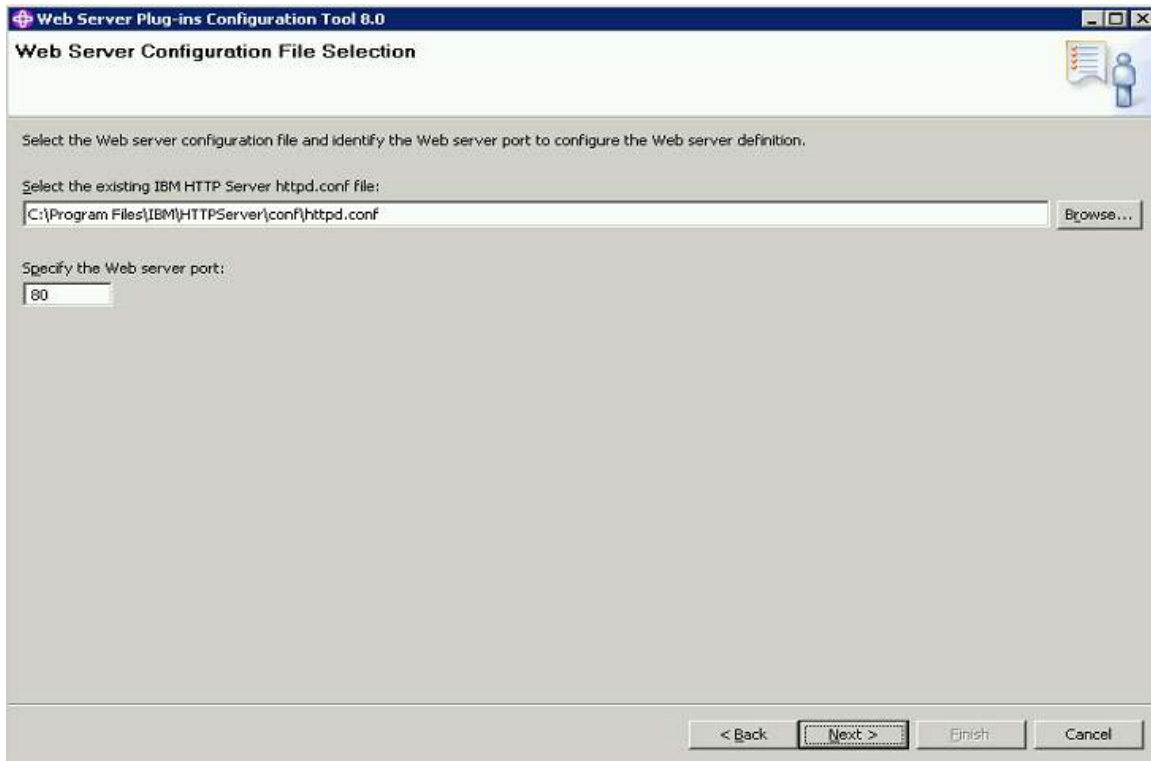
1. Start the Web Server Plug-ins Configuration Tool. *Start > All Programs > IBM WebSphere > WebSphere Customization Tool > Tools > Web Server Plug-in Configuration Tool.*
2. Highlight the Web Server Plug-in and click **Create**.



3. Select the Server to configure. In this case we are configuring the IBM HTTP Server.



4. Select the existing IBM HTTP server httpd.conf file.



Web Server Plug-ins Configuration Tool 8.0

Web Server Configuration File Selection

Select the Web server configuration file and identify the Web server port to configure the Web server definition.

Select the existing IBM HTTP Server httpd.conf file:

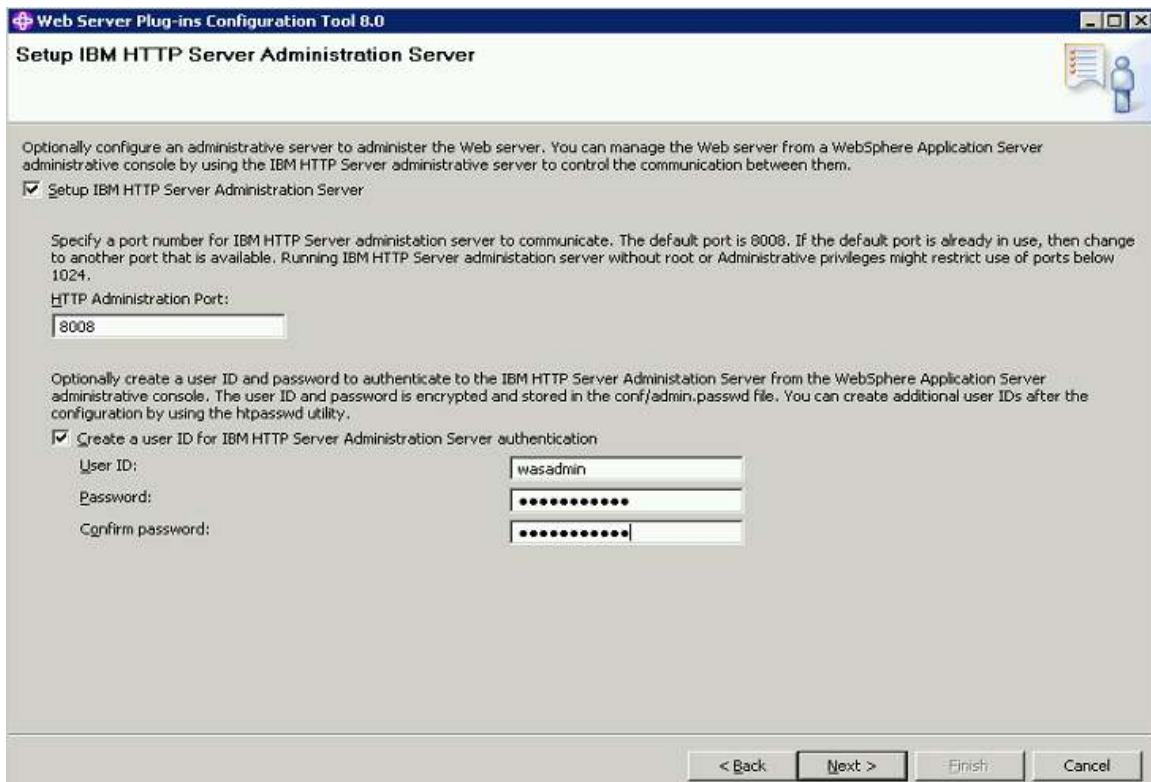
C:\Program Files\IBM\HTTPServer\conf\httpd.conf Browse...

Specify the Web server port:

80

< Back **Next >** Finish Cancel

5. Create a user ID for the IBM HTTP Server Administration server authentication.



Web Server Plug-ins Configuration Tool 8.0

Setup IBM HTTP Server Administration Server

Optionally configure an administrative server to administer the Web server. You can manage the Web server from a WebSphere Application Server administrative console by using the IBM HTTP Server administrative server to control the communication between them.

☒ Setup IBM HTTP Server Administration Server

Specify a port number for IBM HTTP Server administration server to communicate. The default port is 8008. If the default port is already in use, then change to another port that is available. Running IBM HTTP Server administration server without root or Administrative privileges might restrict use of ports below 1024.

HTTP Administration Port:

8008

Optionally create a user ID and password to authenticate to the IBM HTTP Server Administration Server from the WebSphere Application Server administrative console. The user ID and password is encrypted and stored in the conf/admin.passwd file. You can create additional user IDs after the configuration by using the httpasswd utility.

☒ Create a user ID for IBM HTTP Server Administration Server authentication

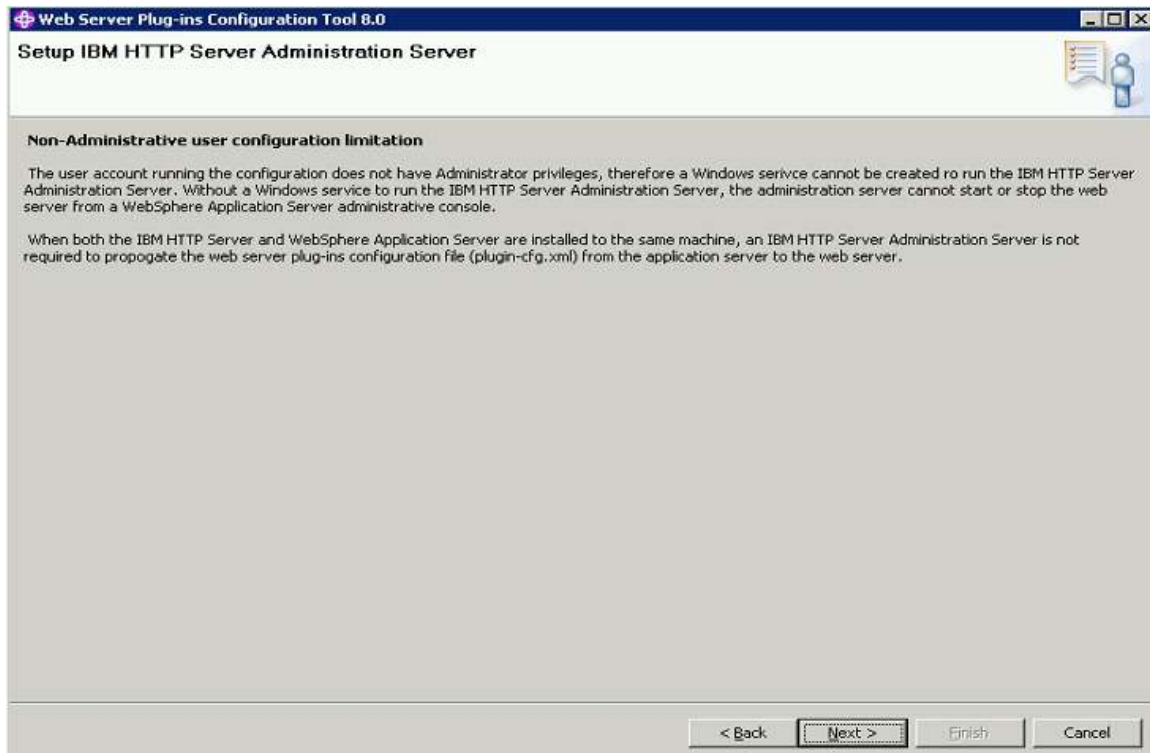
User ID: wasadmin

Password:

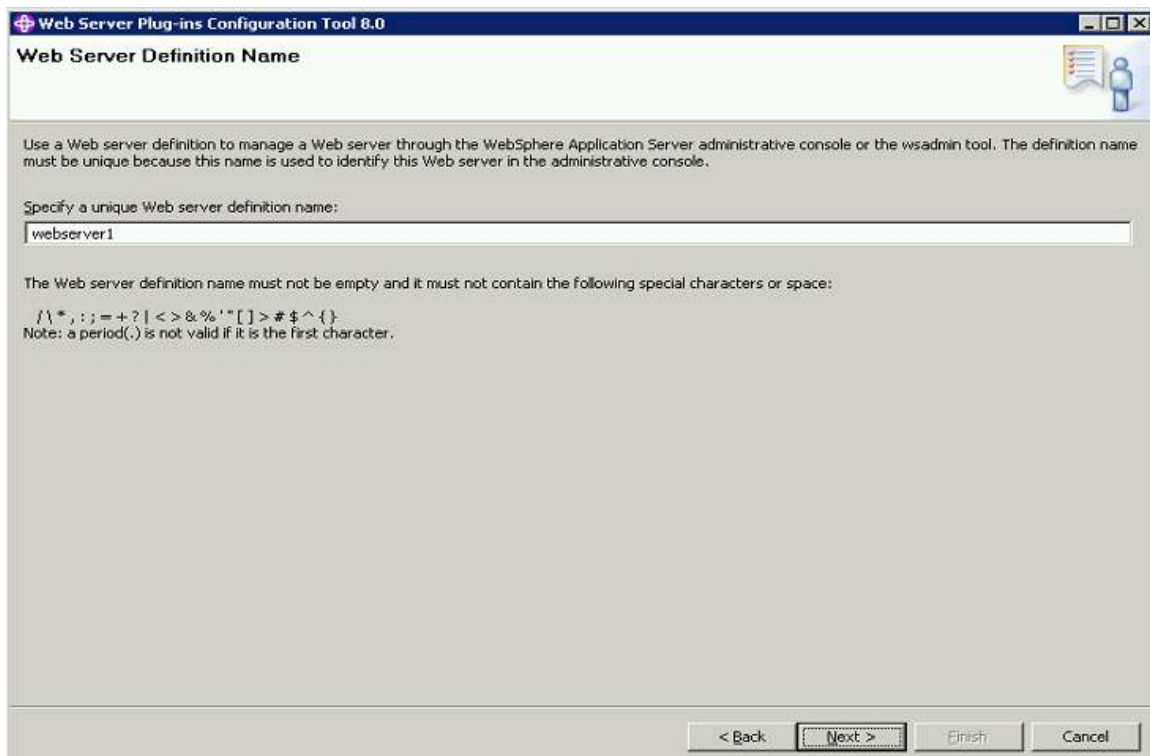
Confirm password:

< Back **Next >** Finish Cancel

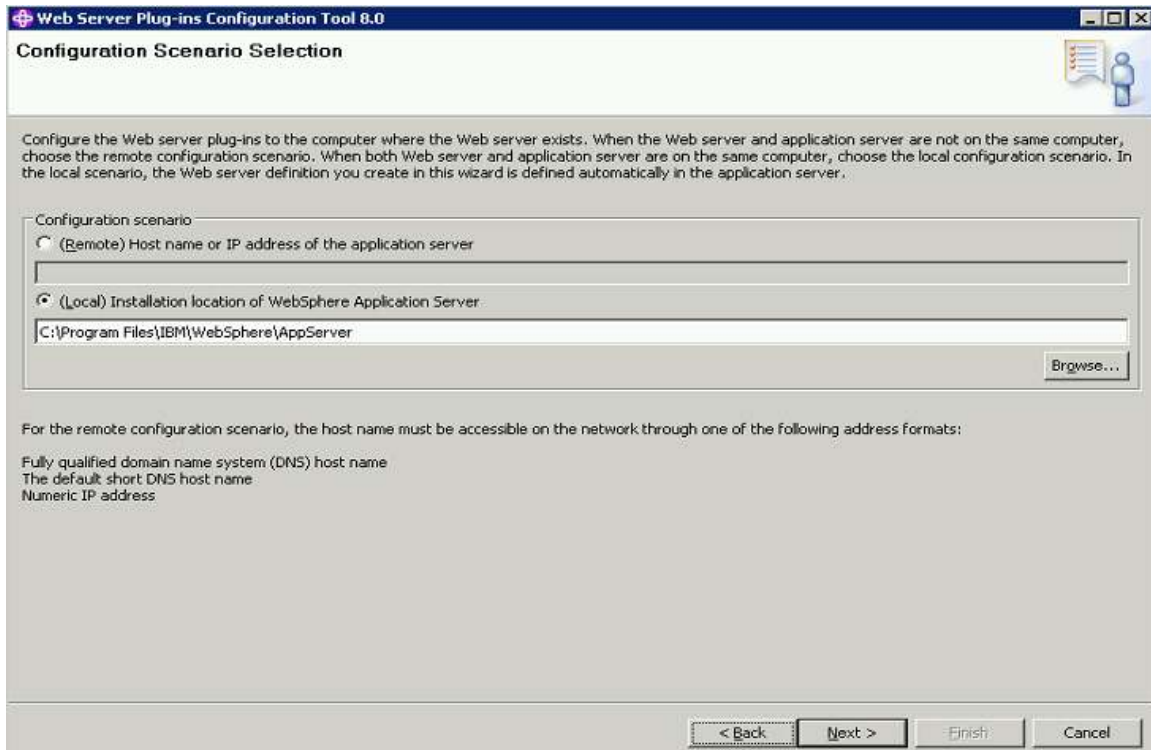
6. When the dialog *Non-Administrative user configuration limitation* appears, click **Next**.



7. Define the name of the Web Server. Here we are using the default name. **Click** Next.



8. Define remote or local host. For a production environment, this should be on a separate server and therefore you would select the remote configuration. Click **Next**.



Web Server Plug-ins Configuration Tool 8.0

Configuration Scenario Selection

Configure the Web server plug-ins to the computer where the Web server exists. When the Web server and application server are not on the same computer, choose the remote configuration scenario. When both Web server and application server are on the same computer, choose the local configuration scenario. In the local scenario, the Web server definition you create in this wizard is defined automatically in the application server.

Configuration scenario

☐ (Remote) Host name or IP address of the application server

☒ (Local) Installation location of WebSphere Application Server

C:\Program Files\IBM\WebSphere\AppServer

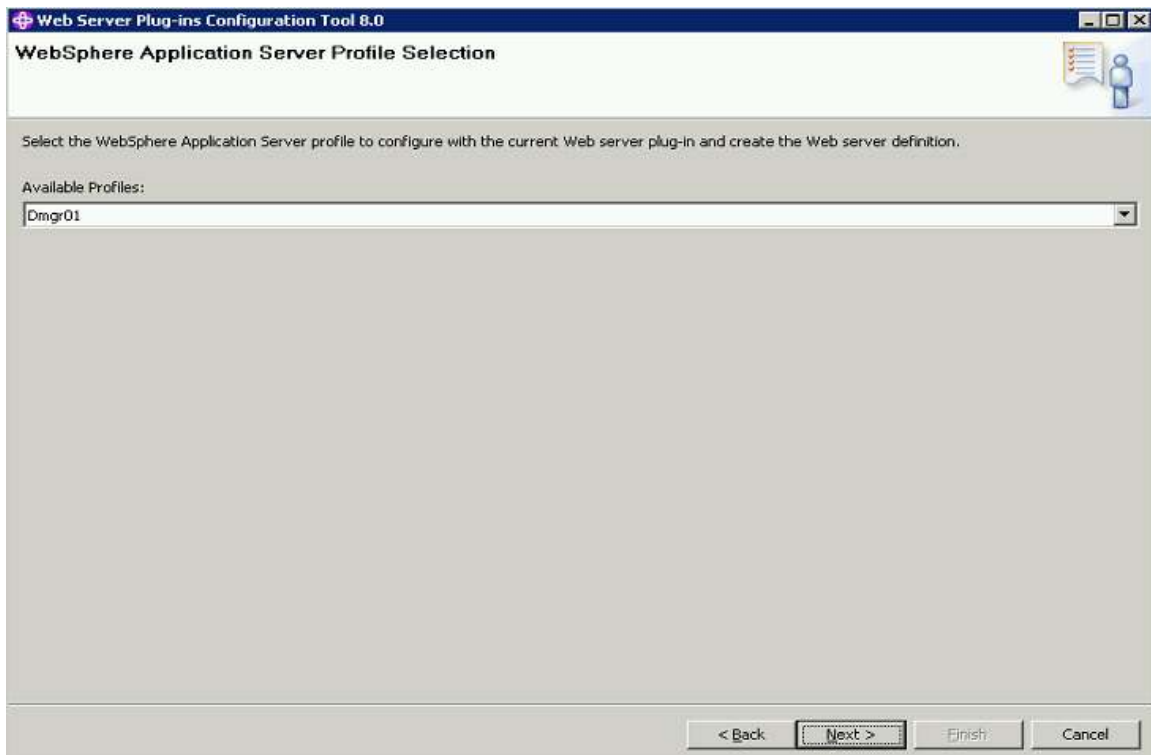
Browse...

For the remote configuration scenario, the host name must be accessible on the network through one of the following address formats:

- Fully qualified domain name system (DNS) host name
- The default short DNS host name
- Numeric IP address

< Back Next > Finish Cancel

9. Define the profile where the web server will be configured and click **Next**.



Web Server Plug-ins Configuration Tool 8.0

WebSphere Application Server Profile Selection

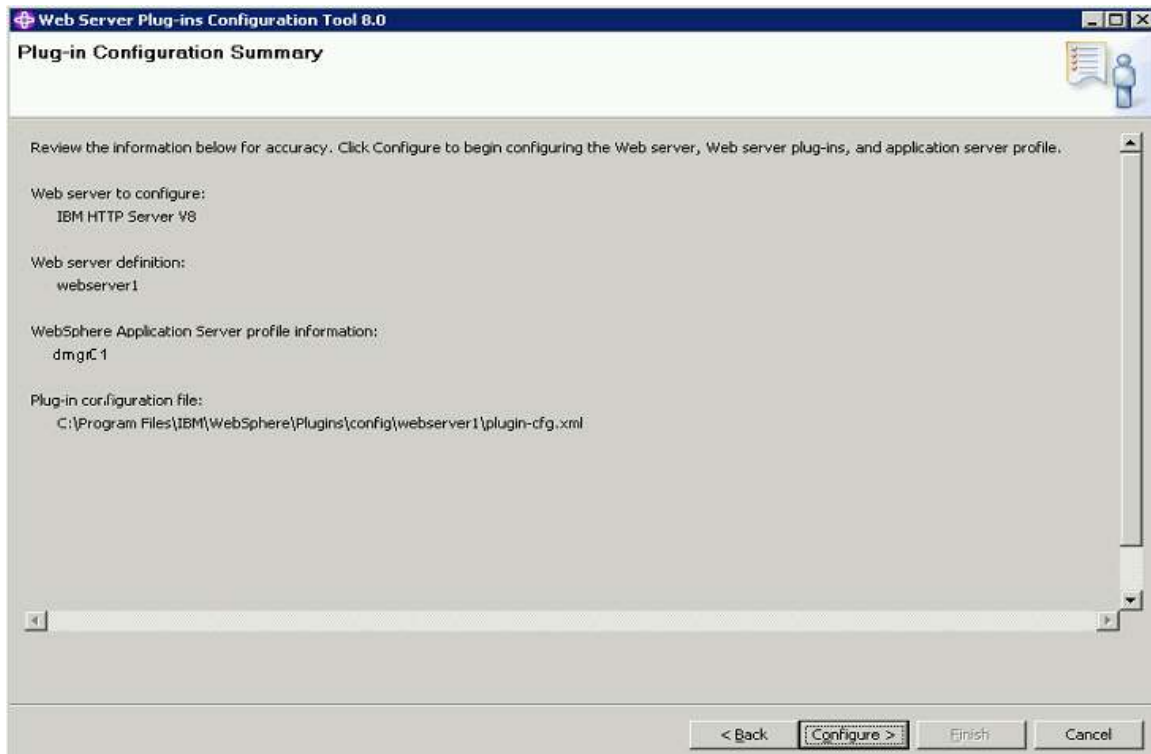
Select the WebSphere Application Server profile to configure with the current Web server plug-in and create the Web server definition.

Available Profiles:

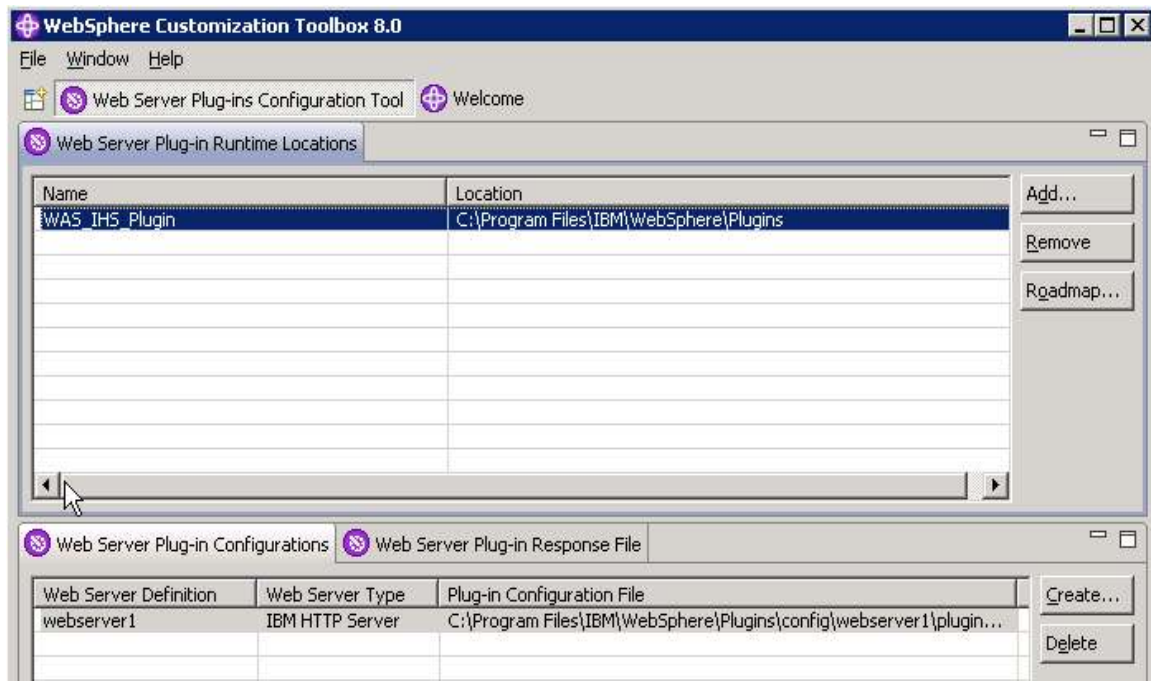
Dmgr01

< Back Next > Finish Cancel

10. Review the summary and click **Configure**.



11. When the installation completes, click **Finish**.





12. From the command prompt, navigate to C:\IBM\WebSphere\Plugins\bin. Look for a script file with the name you gave the HTTP server in the previous step. The syntax of the file will be as follows:

configure <HTTPServer name>.bat (ie. configurewebserver1.bat)

13. Copy the bat file to the WAS server location C:\IBM\WebSphere\AppServer\bin
14. From C:\IBM\WebSphere\AppServer\bin run the configurewebserver1.bat file to automatically configure the HTTPServer with the WebSphere Application Deployment Manager (DMGR).
15. Log into the WebSphere Application Server administration console and navigate to *Servers > Server Types > Web servers* to verify the webserver1 is configured correctly.

Web servers

Use this page to view a list of the installed web servers.

[Preferences](#)

Generate Plug-in					
Propagate Plug-in					
New...					
Delete					
Templates...					
Start					
Stop					
Terminate					
Select	Name	Web server Type	Node	Host Name	Version
You can administer the following resources:					
<input checked="" type="checkbox"/>	webserver1	IBM HTTP Server	l2vm11Node01	l2vm11.PureEdge.com	ND 8.0.0.4
Total 1					

16. Click on `webserver1` and continue navigating to *Plug-in properties > Request routing* and confirm the load balancing option is set to *RoundRobin*

The screenshot shows a web browser window titled 'Web servers'. The breadcrumb navigation is 'Web servers > webserver1 > Plug-in properties > Request routing'. Below the breadcrumb, there is a descriptive text: 'Use this page to configure request routing properties for a Web server plug-in. These properties apply to all requests the Web server routes to application servers.' The 'Configuration' tab is active. Under the 'Request routing' section, the 'Load balancing option' is set to 'Round Robin' in a dropdown menu. The 'Retry interval' is set to '60' seconds. The 'Maximum size of request content' section has 'No Limit' selected with a radio button. The 'Maximum buffer size used when reading the HTTP request content' is set to '64' KBytes. The 'Remove special headers' checkbox is checked, and the 'Clone separator change' checkbox is unchecked. At the bottom, there are four buttons: 'Apply', 'OK', 'Reset', and 'Cancel'.

Web servers

Web servers > webserver1 > Plug-in properties > Request routing

Use this page to configure request routing properties for a Web server plug-in. These properties apply to all requests the Web server routes to application servers.

Configuration

Request routing

Load balancing option
Round Robin

* Retry interval
60 seconds

Maximum size of request content
☒ No Limit
☐ Set Limit

* Maximum buffer size used when reading the HTTP request content
64 KBytes

☒ Remove special headers
☐ Clone separator change

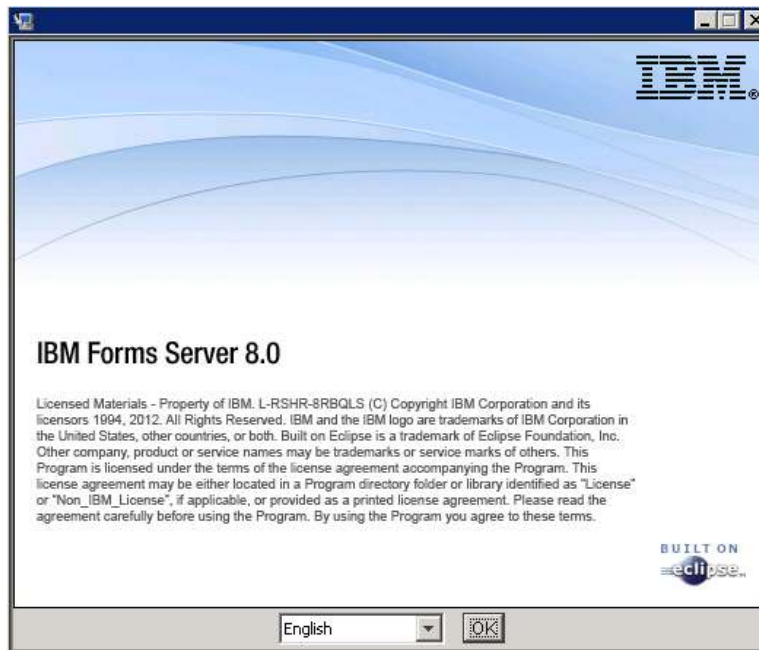
Apply OK Reset Cancel

17. Save the changes.

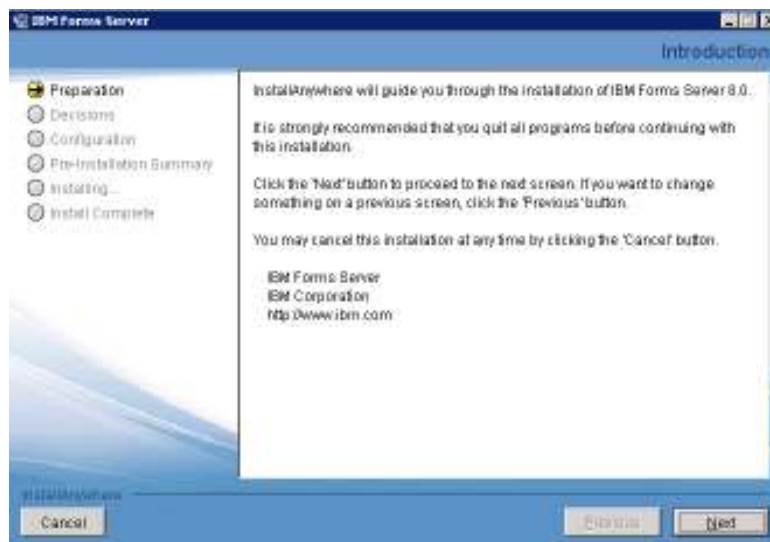
Installing Lotus Forms Webform Server 8.0

The installation of Webform Server will be completed on the federated Node. Ensure you do not install the Webform Server on the DMGR. This document assumes the SharedFileCache is installed on the save server. In a production environment, you should consider putting the SharedFileCache on a separate server.

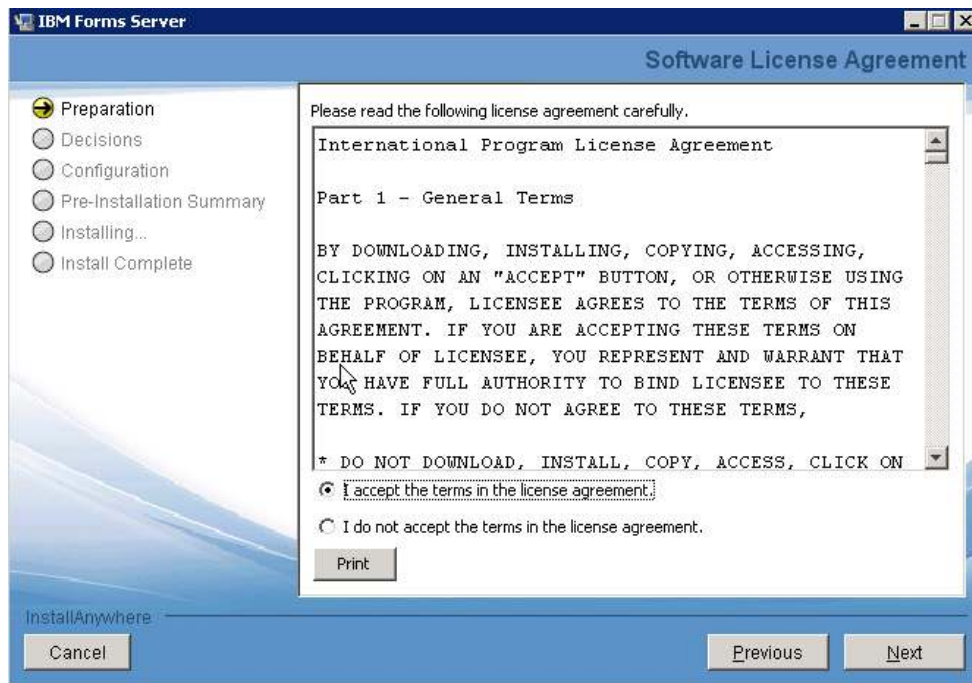
1. Double click the exe file to start the IBM Forms Server install
2. Select the language and click **OK**



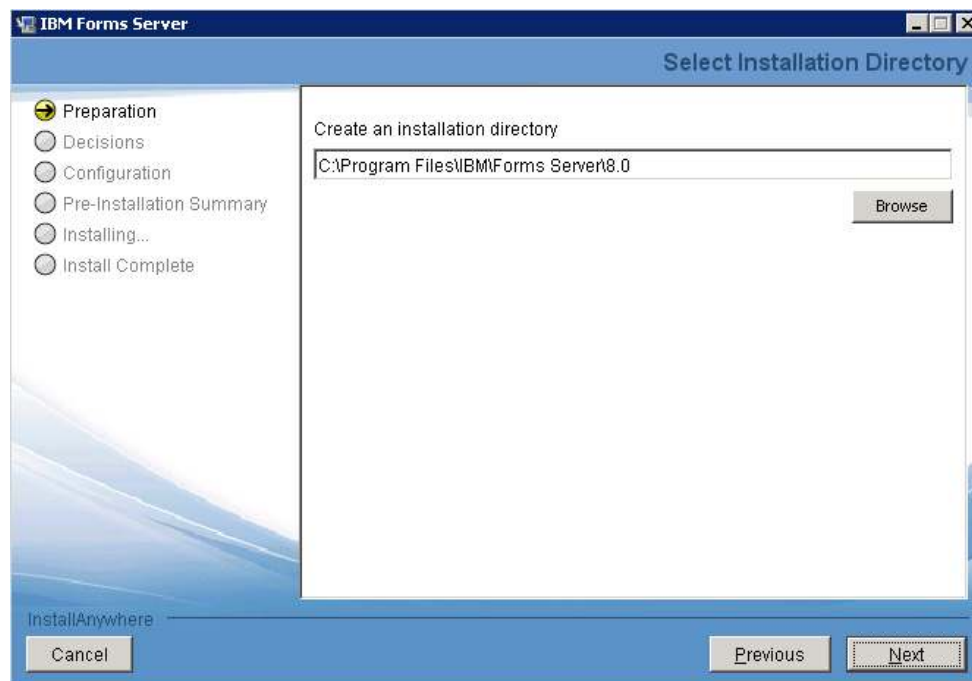
3. When the Preparation window opens select **Next**



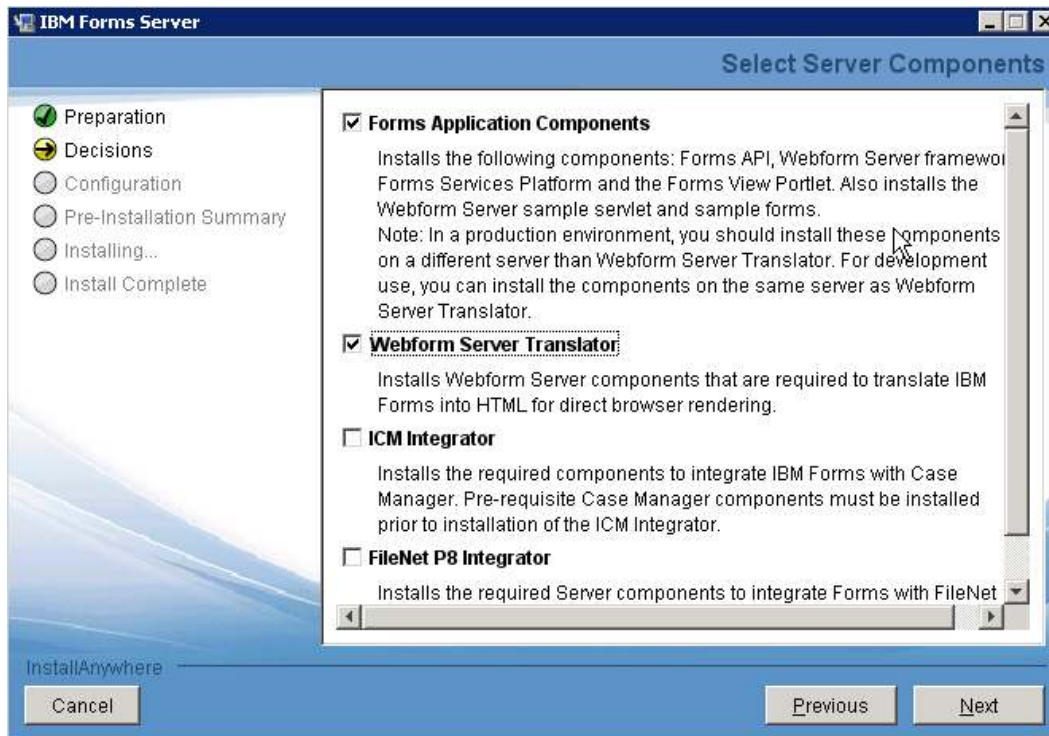
4. Accept the licensing agreement and click **Next**



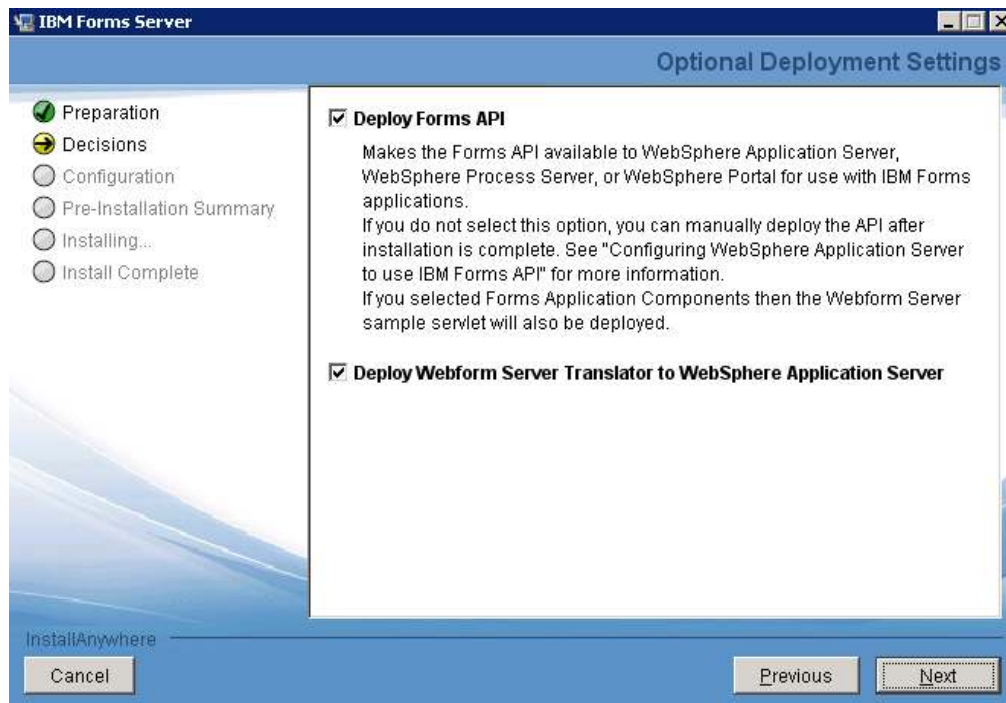
5. Accept the default installation directory and select **Next**



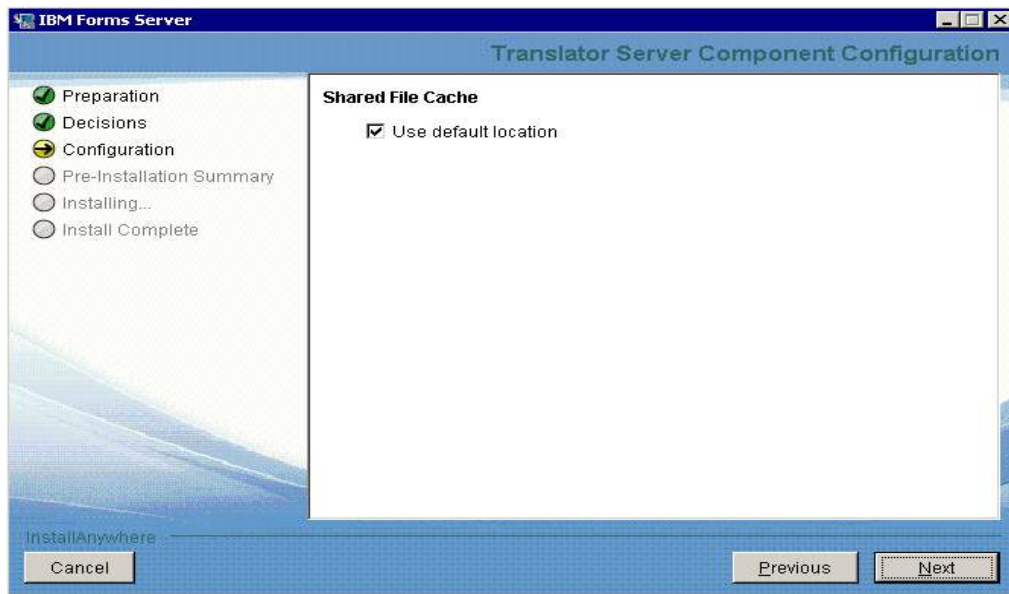
6. Select Webform Server Translator and click **Next**



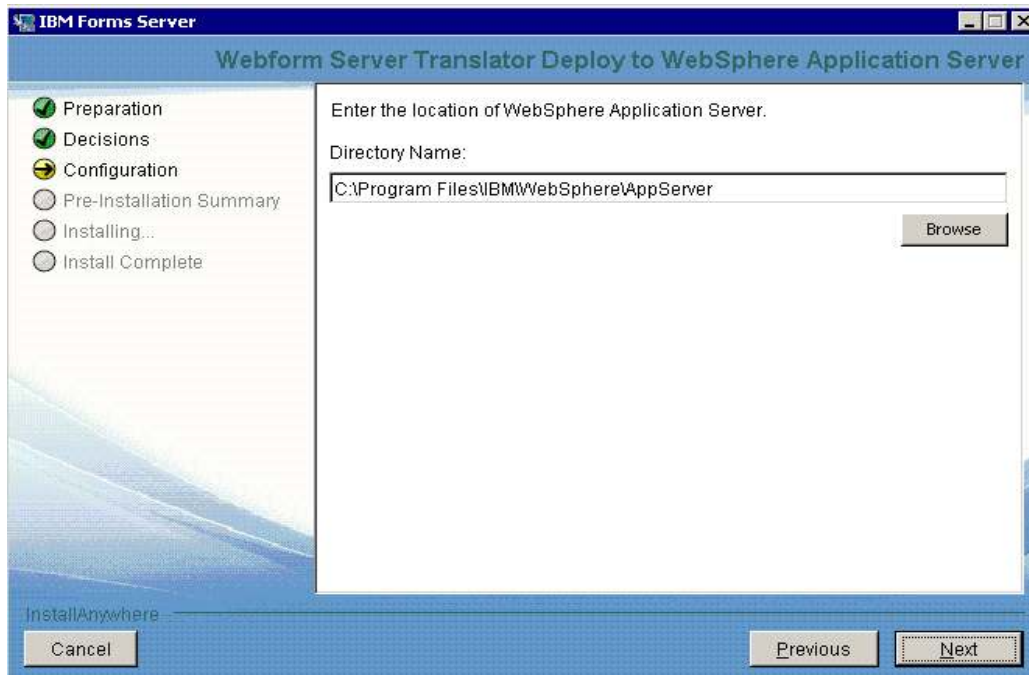
7. Select *Deploy Forms API* and to *Deploy Webform Server Translator to WebSphere Application Server* and click **Next**



8. Select *use default location* for the Shared File Cache and click **Next**.



9. Define the WebSphere Application Server directory location and click **Next**.



10. By default the data for the node and cell will auto-populate. Verify the auto-populated data is correct. Scroll down and define the user name and password for the WebSphere Application Server and click **Next**.

The screenshot shows the 'WebSphere Application Server Settings' window for the 'IBM Forms Server'. On the left, a vertical list of steps includes 'Preparation', 'Decisions', 'Configuration' (which is highlighted with a yellow arrow), 'Pre-Installation Summary', 'Installing...', and 'Install Complete'. The main area is titled 'API deploy to WebSphere Application Server Details:' and contains several input fields: 'Profile' (a dropdown menu showing 'AppSrv01'), 'Cell (must already exist)' (a text box with 'I2vm11Cell01'), 'Node (must already exist)' (a text box with 'I2vm11Node01'), 'Server Name (must already exist)' (a text box with 'server1'), 'Webform Server Sample Servlet Details:' (a section header), 'Application Name' (a text box with 'WebformSampleApp'), 'Application Context' (a text box with '/Samples'), and 'Enter Credentials' (a section header). At the bottom left, there is a 'Cancel' button and a 'Previous' button. At the bottom right, there is a 'Next' button. The window title bar says 'IBM Forms Server' and the title of the main pane is 'WebSphere Application Server Settings'.

11. Once the installation completes, start the Translator from the WebSphere Application Server Deployment Manager administration console
Servers > Server Types > WebSphere application servers
Test the installation by accessing the toolbar URL.

http://<server_name>:8085/translator/Translate?Action=toolbar



Webform Server

Webform Server allows you to use a Web browser to view and complete XFDL forms. The toolbar buttons provide the following functionality:



Opens any XFDL form that is available on the local computer or network.
Shortcut key: Alt + O



Saves the current form to the local computer as an XFDL file.
Shortcut key: Alt + S



Prints the form to the local printer.
Shortcut key: Alt + P



Refreshes the form, which updates all of the computes in the form.
Shortcut key: Alt + R



Toggles the accessibility mode. When this mode is active, you will see an enhanced focus indicator on any item that has the focus. As well, the form will provide additional information to active screen readers

Creating TranslatorServer Cluster

1. From the deployment manager administration console, navigate to *Servers > Clusters > WebSphere application server clusters* and select **New**



2. Key in the name of the New cluster (WFS_Cluster) and click **Next**

The screenshot shows a window titled "Create a new cluster". On the left, a sidebar lists four steps: "Step 1: Enter basic cluster information" (highlighted with a yellow arrow), "Step 2: Create first cluster member", "Step 3: Create additional cluster members", and "Step 4: Summary". The main area is titled "Enter basic cluster information". It contains a text field for "Cluster name" with the value "WFS_Cluster". Below it are two checkboxes: "Prefer local. Specifies whether enterprise bean requests will be routed to the node on which the client resides when possible." (checked) and "Configure HTTP session memory-to-memory replication" (unchecked). At the bottom are "Next" and "Cancel" buttons.

3. Select the radio button *Create the member by converting an existing application server* and select the secondary node *TranslatorServer*

The screenshot shows the same window, now at "Step 2: Create first cluster member". The sidebar highlights this step. The main area has a title bar "Create first cluster member" and a descriptive paragraph. It includes a "Member name" text field with "TranslatorServer", a "Select node" dropdown menu showing "l2vm11Node01(ND 8.0.0.4)", and a "Weight" text field with "2" and a range "(0..100)". There is a checkbox for "Generate unique HTTP ports" which is unchecked. Below is a "Select how the server resources are promoted in the cluster." dropdown menu set to "Cluster". A section titled "Select basis for first cluster member:" contains four radio buttons. The third option, "Create the member by converting an existing application server.", is selected. Its associated dropdown menu shows the path "l2vm11Cell01/l2vm11Node01(ND 8.0.0.4)/TranslatorServer". At the bottom are "Previous", "Next", and "Cancel" buttons.

4. Type in the name of the next cluster member (TranslatorServer1), check *Generate unique HTTP ports* and click **Add Member**
5. Select the Node

Create a new cluster

Step 1: Enter basic cluster information

Step 2: Create first cluster member

→ **Step 3: Create additional cluster members**

Step 4: Summary

Create additional cluster members

Enter information about this new cluster member, and click Add Member to add this cluster member to the member list. A server configuration template is created from the first member, and stored as part of the cluster data. Additional cluster members are copied from this template.

* Member name
TranslatorServer1

Select node
l2vm11Node01(ND 8.0.0.4)

* Weight
2 (0..100)

☒ Generate unique HTTP ports

Add Member

Use the Edit function to modify the properties of a cluster member in this list. Use the Delete function to remove a cluster member from this list. You are not allowed to edit or remove the first cluster member.

Edit Delete

Select	Member name	Nodes	Version	Weight
<input checked="" type="checkbox"/>	TranslatorServer	l2vm11Node01	ND 8.0.0.4	2
Total 1				

Previous Next Cancel

- Create a third clustered member called TranslatorServer2 and clicking **Add Member**, click **Next**

Create a new cluster

Step 1: Enter basic cluster information

Step 2: Create first cluster member

→ **Step 3: Create additional cluster members**

Step 4: Summary

Create additional cluster members

Enter information about this new cluster member, and click Add Member to add this cluster member to the member list. A server configuration template is created from the first member, and stored as part of the cluster data. Additional cluster members are copied from this template.

* Member name
TranslatorServer1

Select node
l2vm11Node01(ND 8.0.0.4)

* Weight
2 (0..100)

☒ Generate unique HTTP ports

Add Member

Use the Edit function to modify the properties of a cluster member in this list. Use the Delete function to remove a cluster member from this list. You are not allowed to edit or remove the first cluster member.

Edit Delete

Select	Member name	Nodes	Version	Weight
<input checked="" type="checkbox"/>	TranslatorServer	l2vm11Node01	ND 8.0.0.4	2
<input type="checkbox"/>	TranslatorServer1	l2vm11Node01	ND 8.0.0.4	2
<input type="checkbox"/>	TranslatorServer2	l2vm11Node01	ND 8.0.0.4	2
Total 3				

Previous Next Cancel

- Review the Summary and Click **Finish**

Summary of actions:

Options	Values
Cluster Name	WFS_Cluster
Core Group	DefaultCoreGroup
Node group	DefaultNodeGroup
Prefer local	true
Configure HTTP session memory-to-memory replication	false
Server name	TranslatorServer
Node	I2vm11Node01(ND 8.0.0.4)
Weight	2
Clone Template	I2vm11Cell01/I2vm11Node01(ND 8.0.0.4)/TranslatorServer
Clone Basis	Create the member by converting an existing application server.
Select how the server resources are promoted in the cluster.	cluster
Generate unique HTTP ports	false
Server name	TranslatorServer1
Node	I2vm11Node01(ND 8.0.0.4)
Weight	2
Clone Template	Version 8 member template
Generate unique HTTP ports	true
Server name	TranslatorServer2
Node	I2vm11Node01(ND 8.0.0.4)
Weight	2
Clone Template	Version 8 member template
Generate unique HTTP ports	true

8. Save all the Clustered member changes

9. Start the WFS_Cluster: *Servers > Server Types > WebShere application server* Check the checkbox beside the Translators and click the **Start** button.

Verifying Host aliases for the new clustered members

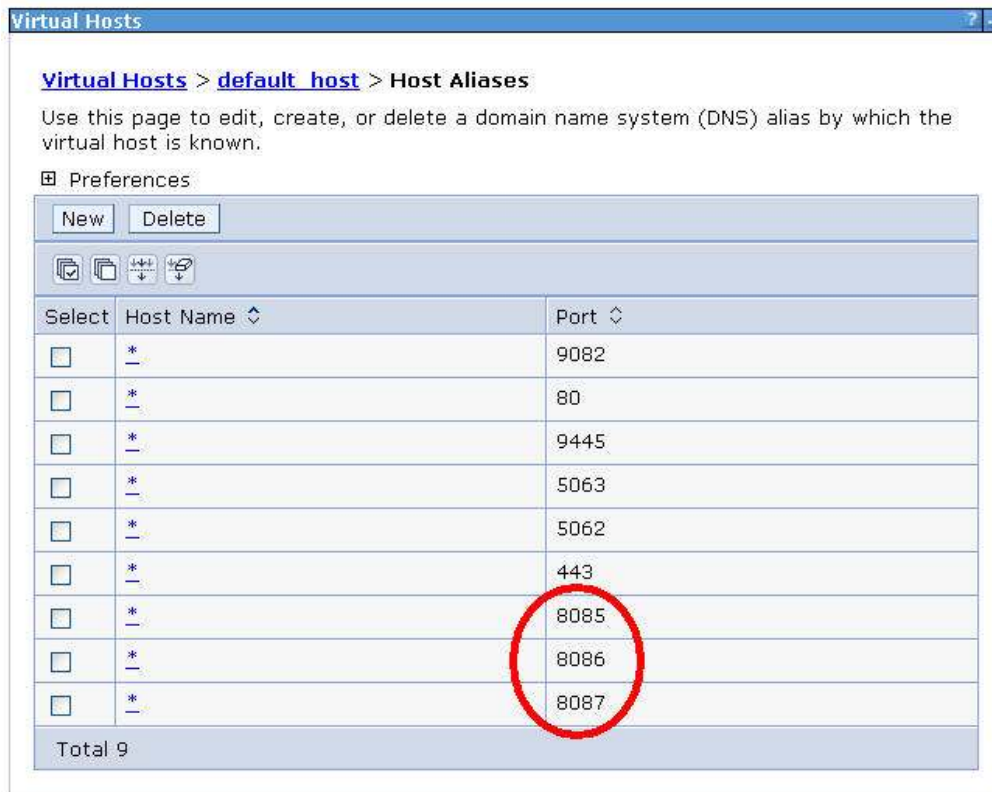
- From the DMGR administration console, navigate to *Environment > Virtual Hosts > default_host*



2. Select *Host Aliases* under Additional Properties



3. Here you should see the Host Aliases using ports 8085, 8086, and 8087. If you do not see these three ports then select new and add them.



- Navigate to *Applications > Application Types > WebSphere Enterprise Applications > TranslatorApp > Manage Modules* and select IBM Webform Server Translator. Highlight WFS_Cluster and webserver1 and click Apply.

Enterprise Applications > TranslatorApp > Manage Modules

Manage Modules

Specify targets such as application servers or clusters of application servers where you want to install the modules that are contained in your application. Modules can be installed on the same application server or dispersed among several application servers. Also, specify the Web servers as targets that serve as routers for requests to this application. The plug-in configuration file (plugin-dfg.xml) for each Web server is generated, based on the applications that are routed through.

Clusters and servers:

WebSphere:cell=l2vm11Cell01,duster=WFS_Cluster
 WebSphere:cell=l2vm11Cell01,node=l2vm11Node01,server=server1
 WebSphere:cell=l2vm11Cell01,node=l2vm11Node01,server=webserver1

Remove Update Remove File Export File Apply

Select	Module	URI	Module Type	Server
<input checked="" type="checkbox"/>	IBM Webform Server Translator 8.0.1.94	translator.war;WEB-INF/web.xml	Web Module	WebSphere:cell=l2vm11Cell01,duster=WFS_Cluster

OK Cancel

- Navigate to *Servers > Server Types > Web servers*. Select *webserver1* and click **Generate Plug-in**
- Click **Propagate Plug-in**

Web servers

Use this page to view a list of the installed web servers.

Preferences

Generate Plug-in Propagate Plug-in New... Delete Templates... Start Stop Terminate

Select	Name	Web server Type	Node	Host Name	Version	Status
<input checked="" type="checkbox"/>	webserver1	IBM HTTP Server	l2vm11Node01	l2vm11.PureEdge.com	ND 8.0.0.4	➔

Total 1

- Navigate to *System administration > Node agents* to verify the status of the node agent. You should see a green arrow under the status column.
- If the Clustered members are not already started, navigate to *Servers > Server Types > Application Servers*. Check the checkboxes beside each Translator Server and click **start** to start the servers. You will see a green arrow under the status column once the servers are started.

Application servers

Use this page to view a list of the application servers in your environment and the status of each of these servers. You can also use this page to change the status of a specific application server.

Preferences

New... Delete Templates... Start Stop Restart ImmediateStop Terminate

Select	Name	Node	Host Name	Version	Cluster Name	Status
<input type="checkbox"/>	TranslatorServer	l2vm11Node01	l2vm11.PureEdge.com	ND 8.0.0.4	WFS_Cluster	➔
<input type="checkbox"/>	TranslatorServer1	l2vm11Node01	l2vm11.PureEdge.com	ND 8.0.0.4	WFS_Cluster	➔
<input type="checkbox"/>	TranslatorServer2	l2vm11Node01	l2vm11.PureEdge.com	ND 8.0.0.4	WFS_Cluster	➔
<input type="checkbox"/>	server1	l2vm11Node01	l2vm11.PureEdge.com	ND 8.0.0.4		➔

Total 4

9. Test each of the Translators to ensure each is working successfully.

a) Open a browser and navigate to:

`<server_name>:8085/translator/Translate?Action=toolbelt`

The Welcome to IBM® Lotus® Forms Server - Webform Server page opens.

Note: This is the only time that you should access the Translator directly from a browser. In production use you should access the Translator only by your servlets or portlets.

b) If the Welcome to IBM IBM Forms Server - Webform Server page does not open, refer to the *Troubleshooting the installation* section of the info center.

<http://publib.boulder.ibm.com/infocenter/forms/v3r5m1/index.jsp>

Federating the Second Node with Deployment Manager

This section assumes you have installed the WebSphere Application Server 8.0.0.4 on another server and are ready to create a managed node.

1. On the secondary server navigate to C:\Program Files\IBM\WebSphere\AppServer\profiles\AppSrv01\ bin
2. Run the addNode command as follows:
addNode.bat <Name of host profile> <host port>
addNode.bat DMGR.victoria.ibm.com 8879

****NOTE: See troubleshooting steps if addNode task fails**

3. Navigate to the DMGR administration panel and review the nodes listed under System administration -> Nodes.
4. Verify the nodeagents are running System administration

Webform Server Install and Set-up on additional Nodes

There are often times that a company user base outgrows the current server setup. Additional nodes allow for the capacity needed. This section discusses how to add additional nodes with additional TranslatorServer members. This section assumes that the node3 is installed before completing this section.

1. Install WebSphere Application Server as a managed node and upgrade as described earlier in this guide.
2. Verify the Deployment manager, node, and nodeagent are running
3. Start the install of Webform Server on the new node.
4. Choose **NOT** to deploy the translator application by **deselecting** Webform Server Translator



****Note:** Depending on the environment there may be a few additional steps, for example, modifying WebSphere Application Server environment variables, and copying the DB2 drivers to the new node. This guide does not cover these steps.

Adding additional Translator Cluster members for additional nodes

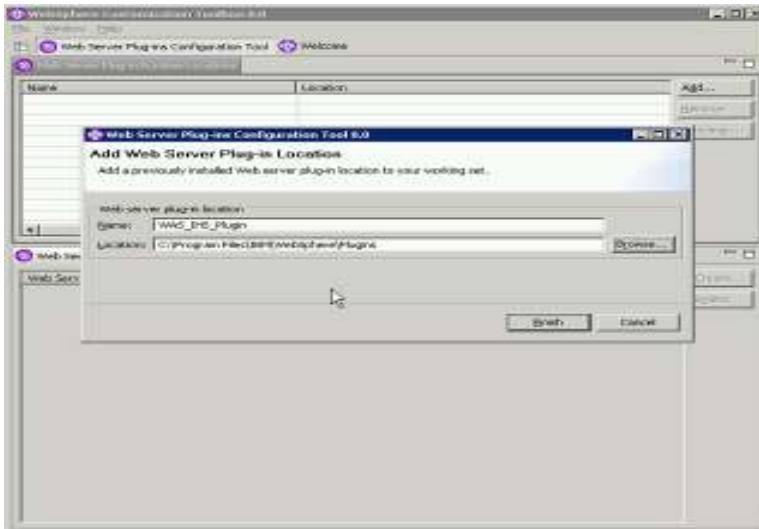
1. Access the Deployment Manager
2. Navigate to *Servers > Clusters > WebSphere Application Server Cluster > WFS_Cluster > Cluster Members* and click the “**Details**” button
3. Click the “**New**” button
4. Enter the **Member name** for example TranslatorServer3
5. Under **Select node** choose the name of the newly added node and press
6. “**Add Member.**” Follow step 4 and 5 if needing additional cluster members. Press
7. “**Next**”
5. Review the details and press the “**Finish**” button.
6. Save the changes and click “**OK**”
7. Navigate to *Servers > Server Types > WebSphere Application Servers*
8. Select the checkbox beside the newly added cluster member(s) and press the “**Start**” button.
9. Verify the new cluster member is working correctly by navigating to the translator toolbar URL. For example:
`http://<serverName>:8088/translator/Translate?Action=toolbar`

****Note:** The port will change depending on the number of cluster members. The first member will be port 8085 and each additional member will increment by one (8086, 8087, and 8088).

Troubleshooting

The Create button on the Web Server Plug-in Configuration Tool does not work

This could indicate that you are experiencing a defect within the Configuration Tool that is resolved with APAR PM46369: Create button unresponsive in WAS v8 Plugin Configuration Tool of WebSphere Customization Toolbox.) <http://www-01.ibm.com/support/docview.wss?uid=swg1PM46369>



An upgrade is required to create the Web Server, as there is a defect with version 8.0 of the WebSphere Customization Toolbox.

AddNode Task fails

You may experience an issue where you run the addNode task but receive a failure at the command line. If this occurs and you can see the node "SECONDARYNodeName" still exists in the dmgr master configuration follow these steps to clean up:

1. Make sure dmgr is running.
2. Run cleanupNode.bat script from the Dmgr. Navigate to the bin directory of the Dmgr and run the task as the sample below.

```
cleanupNode.bat <NodeName> <host> <host port> -trace
```

```
C:\Program Files\IBM\WebSphere\AppServer\profiles\Dmgr01\bin>cleanupNode.bat  
SECONDARYNode01 DMGR.victoria.ibm.com 8879 -trace
```

3. If this command runs fine with no errors then check the node location directory to make sure the "SECONDARYNode01" is no longer listed.

4. After confirming the secondary node is removed, then stop dmgr and cleanup following directory :

```
C:\Program Files\IBM\WebSphere\AppServer\profiles\Dmgr01\config\temp
```

5. Clean up the C:\Program Files\IBM\WebSphere\AppServer\profiles\AppServer\config\temp

6. If the cleanupNode.bat command fails in the step 2, then create a PMR with the WebSphere Application Server team for assistance. Send them the new collector tool output from dmgr01 profile.